IDEA AND FREEDOM

THE SEARCH FOR FORM
IN CLASSICAL ARCHITECTURE AND THE MODERN MOVEMENT

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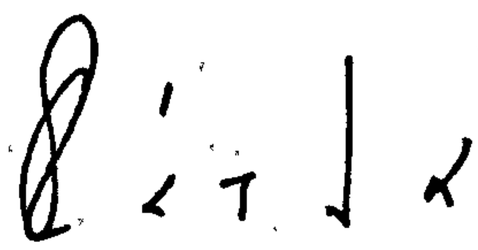
DECLARATION

This thesis has been composed by myself
and is my own original work.



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ABSTRACT

The utopian idealization of a rational order of things as it has been expressed by Modern Movement architecture can be exposed due to the openness in the principles of knowledge intrinsic in the isolation of reason from metaphysics accomplished by Modernity. In fact, the development of criticism and theory in architecture constitutes an expression of the Modern situation.

This thesis aims to a critique of Modern Movement architecture in the light of Classical architecture. The issue of political knowledge as it stands within the historicity of each architecture is established as the context through which Classical and Modern Movement architectures are approached and related to each other.

Classical architecture enjoyed existence within the universal and immutable, semi-human and semi-divine order of the *polis*. Metaphysics embraced reason, while living in the *polis* essentially implied reasoned interaction between the citizens on this ground. The autonomy as well as the unity of architecture within itself and with the environment were attained due to the metaphysical origin, the *idea* or *eidos* of a work. At this level, morality, reason and aesthetics were inseparable.

Through the centuries, however, the Classical notion of reason underwent a process of secularization which resulted in the quantification of all knowledge as far as the domain of the political is concerned. Hence, in the Modern era, the autonomy of architecture far from being manifested through the potentiality of a work for an infinite number of distinct corporeal expressions inherent in its *eidos*, is defined in the sphere of the aesthetic through the notion of "aesthetic disinterestedness". "Aesthetic disinterestedness" implies the separation of the aesthetic from morality and reason in any sense, and is related to human psychology. At the same time, unity, instead of deriving from the essence, originates in the supra-quantitative factors which determine interaction in the political field. As a result, autonomy and unity are mutually exclusive by definition. Modern Movement architecture illustrates clearly this situation.

The attempt of the Modern Movement architects to attribute aesthetic significance to rational schemes while satisfying social imperatives for function and economy was stimulated by the Modern belief in the universality of reason. In these terms, architecture lost its ontological status, while the development of theory and criticism has continuously increased. However, creation as such cannot be subject to criticism and ultimately it is evaluated in pragmatic terms.

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INTRODUCTION

1. DISCUSSION OF THE PROBLEM

Contemporary architecture enjoys much greater freedom than it ever did in the past, not only in the field of practice but in the field of theory as well. This freedom, however, seems to be a source of confusion for man as a socio-historical being in general and for the architect in particular. The identification of the fundamental issues which underlie the present situation constitutes a decisive step towards a responsible attitude towards the future facing architecture today. More than this, a theoretical investigation of the subject is an imperative and unavoidable task within the context of secularization of all knowledge and the rejection of metaphysics bequeathed to us by Modernity.

Indeed, as we are going to discuss extensively in this thesis, it was this shift in human knowledge from metaphysical to secular that disengaged architecture from its own self and from the world. We shall attempt to approach the two critical points of the adventures of knowledge within the so called Western world, with a focus on architecture. In fact, aiming at a critique of the Modern Movement architecture, Classical Greek architecture will be used as a standpoint. After Classical times, it was in the Modern era that reason was established as the universal and timeless source of knowledge. The meaning of reason, however, is quite different in the two eras.

In Classical times, reason was not conceived as separate from metaphysics. The *idea* or *eidos* of a thing, its absolute and immutable essence, indicates what the thing is, and constitutes the beginning and end of any reasoned approach to it within the *polis*. The autonomy as well as the unity of Classical architecture are defined in these terms.

In the Modern era, metaphysics has been rejected in favour of man's desire to gain full control over his knowledge. As a result, the ontological question turns into the exploration of the psychology of the human subject, while supra-empirical factors such as economy determine the issue of unity within the human environment. Architecture does not anymore exist *sui generis* but gains autonomy through the aesthetic manipulation of its

form according to the personal visions of the architect. Furthermore, unity as much within architecture as in relation to its socio-political milieu is defined in quantitative terms.

An exposition of this situation of architecture is undertaken in this thesis. Both Classical and Modern Movement architecture are considered here within the political processes of their times. It is far from the scope of this thesis to suggest a retrogression to the past. It is rather an attempt to elucidate the present as a derivative of that past.

2. THE NOTION OF THE INDIVIDUAL AS A POLITICAL BEING AS THE BASIS OF THE RESEARCH

The Classical and Modern eras each indicate a decisive moment in the historical development of man as an individual. The Classical individual originated in the invasion of logic into myth and religion but never arrived at a complete emancipation from its past, while Modern man conceived of morality and religion as separate from truth and decided to find the order of the world by his own means. In both cases, personal will as the expression of individual liberty and reason as the objective measure of everything in existence were established as the two main forces with which the individual identified itself in society and the world. Nevertheless, there is a profound difference underlying the notions of the Classical and the Modern individual.

The Greek way of thinking was comprehensive and all-inclusive, based on *a priori* structures established as the beginning of thought. Reason was bound by universal standards that were unquestionably good and true. Thus individuality was always actively related to the world. In fact, it was in the public domain within the *polis* where the individual gained its existence. In the realm of the *polis*, *politeuesthai*, which means "take part in communal life", simply means living, while Aristotle defines man as *zoon politikon*, "political animal", in order to differentiate him from the animals. *Politeuesthai* essentially consists in reasoned interaction between free and equal citizens on the metaphysical ground provided by the very notion of the *polis*. The order of the universe, *cosmos*, was a projection of the political order. Within this milieu, architecture gained individual liberty and was integrated with its context due to its foundation on the metaphysical order which ruled everything in the *polis*.

As far as the Modern individual is concerned, autonomy stands for isolation and self-reference. The Modern way of thinking lacked any supra-human basis as generator of the formative forces that govern thought. In this respect, reason - as Heidegger expresses it

in "The Origin of the Work of Art" - "having meanwhile become *ratio*, was misinterpreted as being rational". Thus quantitative values were established in order to form the objective ground necessary for the relation of the individual to the fellow men and the world. Here, not only did the public realm cease to bear the meaning of the political anymore but it is hard to draw any distinction between the private and the public sphere. Both have been substituted for "society" which - as Hannah Arendt argues - rather indicates a kind of "collective housekeeping". Within this framework, politics is just one system that regulates the boundaries and rules of all the other systems in the community. Of course, this has nothing to do with political interaction and it is certainly not what essentially differentiates man from animals in Aristotle's sense.

In this context, Modern architecture could express personal images but, first of all, had to be the carrier of a pragmatic meaning in order that it be acceptable to every individual. As a consequence, Modern Movement architecture seems to become the last resort of idealism; and the rational principle of order through a peculiar merging with subjective aesthetics is transformed into ontological assertion.

3. ARTICULATION OF THE THESIS

The thesis consists of six chapters: chapters One and Two constitute Part I which deals with Classical architecture, while chapters Three, Four, and Five form Part II which refers to Modern Movement architecture; part III, which includes chapter Six, concludes the thesis.

Chapter One approaches the order of the Classical city-state, the justice of the *polis*, which, founded on *theos* and *logos* claims universality in the pursuit of establishing individual freedom and equality among the citizens. Individual freedom is achieved first, through a causal way of thinking, and, gradually, equality is reached in order to form the necessary ground for the very essence of the *polis*, political dialectics, to operate.

Chapter Two investigates the origin or the being of the Classical temple considered as the symbol of the *polis*. The main current tendencies which attempt to interpret the coming into being of the Classical temple are criticized first. They are made mainly by archaeologists, who seek to explain the genesis of the temple on the basis of practical and technical requirements. They fail to consider architecture adequately in terms of its politico-cultural milieu. Next, an account is given of the metaphysical nature of the notion of origin in Classical times, as it is expressed through the philosophy of Plato and

Aristotle. In this respect, the relation of the particular temples to the *eidos*, the coming into being of the work in relation to the architect, as well as the social dimension of the temple, are discussed. The latter in particular is considered on two levels of interpretation: it is argued to be fundamentally religious in so far as the temple is considered as the symbol of the mythical Mycenaean past, and essentially political to the extent that the temple constitutes the symbol of the *polis* as a semi-divine, semi-human entity. Within this context, aesthetic pleasure derives from the essential unity between morality and politics.

Chapter Three presents a concise account of the transformation of the Classical notion of reason from metaphysical into secular through the centuries up to the Modern times and of Modern politics in this respect. Politics, from reasoned interaction between equal and free citizens, turns out to be defined in quantitative terms. Political interaction is motivated by supra-empirical factors such as economy. Morality, separated from politics, stands for the freedom of the individual in the private domain.

Chapter Four introduces the Modern concept of the autonomy of art. Through a process whose origins can be identified in the Renaissance, the autonomy of the aesthetic from reason and morality, as well as from any self-referred or practical interest, is accomplished and takes its definite expression in Kant's philosophy. The work is detached from its metaphysical foundation; instead, it originates in human psychology. As a consequence, the distinction between art and non-art, and the principles of art·criticism are undecidable.

Chapter Five provides a critical examination of Modern Movement architecture on the basis of the previous discussion. It is argued that Modern Movement architecture emerges from two, mutually exclusive principles: on the one hand aesthetics, through which it claims autonomy, and on the other hand economy, as a means of integration into the socio-political context of Modernity. Both constitute expressions of the secularization of knowledge in the Modern era. As a result, the autonomy of architecture, far from deriving from the *eidos*, is bound to the subjectivity of the artist through a universal aesthetic that derives from intellectual schemes and treats form alone at the expense of the whole work. Rationalization, instead of expressing the potentiality of the work for infinitely repeated distinct corporeal manifestations, results in typification of form.

Chapter Six, concluding, restates the principles of existence of architecture in the Classical and the Modern political context. The merit of Modern Movement architecture as a life process is questioned. Furthermore, the value and limits of theory and criticism in the architectonic creations of the two eras are discussed. Creation as such cannot be subject to criticism, while theory can only be judged in pragmatic terms with reference to the work.

PART I

CHAPTER ONE

THE IDEA OF DEMOCRACY AND THE GENESIS OF THE *POLIS* AS A METAPHYSICAL ENTITY

1. 1. THE CONCEPT OF INDIVIDUAL FREEDOM AND THE JUSTICE OF THE *POLIS*

The division of ancient Greece into innumerable small city-states was the result of a long anterior process. The term *polis* or *ptoliethron* that designated the city and the state in Classical times, was, in the Mycenean age, applied to the *acropolis*, while the whole inhabited area around it was the *astu* (1). The *acropolis* is referred to in the Homeric poems as "sacred" and "bright", for it included the sanctuary and the palace(2). As the *astu* was developing with the growth of agriculture and trade, the difference between *polis* and *astu* gradually disappeared(3). In the later Homeric verses both terms were used almost indistinguishably to designate the whole of the city(4).

From a purely theoretical aspect, Aristotle in the *Politics* looks at the city-state as the end-product of a natural perfecting process(5). His interpretation of the growth of society is teleological: man, who can begin to develop only in the family, can come to full maturity only in the *polis*. Aristotle calls him "a political animal by nature". This view is consistent with his "theory of Forms": Form is potentially present before the progress begins; by the attainment of the "appropriate form" which in this case is the city-state, human society as an entity and man as individual reach their fulfilment(6).

It is generally accepted that the genesis of the city-state in Greece in the eighth century B.C.(7), as well as its gradual strengthening during the three following centuries is fundamentally related to the freedom of the individual; city-state and individual freedom were mutually supportive and progressed side by side during Classical antiquity(8).

The conception of man as a citizen originated in the Greek colonies of Ionia, in the coastal strip of Asia Minor(9). The extraordinary mixture of immigrant bands coming from

all over Greece and representing all Greek tribes, stimulated the process towards the attainment of individual freedom to take place early and easily. The colonies of the Greeks, so various in their origin, lost the stabilizing force of tradition much more easily than the cities in the mainland. On the other hand, this heterogenity of co-existing elements made the need for more complex political institutions urgent. Lacking the firmer cultural framework of the mainland Greek cities, however, the Ionian colonies never managed to coordinate the energies of their individual citizens and use them in order to strengthen their own power. The Ionian contribution to the concept of *polis* was that it set the individual free, in spiritual and political life(10).

The process towards achieving individual freedom in Ionia was interrelated with and fundamentally supported by the new cultural and economic conditions which emerged there due to the development of commerce and navigation in contrast to the agrarian civilization of the native lands of the immigrants(11). This resulted in the strengthening of man's attempt to approach the world by means of the human intellect on the one hand and the demand for a new social order on the other.

Sailing epics such as the voyage of the Argonauts and the Odyssey with their wonderful stories about the many distant nations visited, praised the adventurous spirit and versatility displayed by the Greeks in these new conditions of life. Individual initiative, wide vision and independent criticism were the chief characteristics of the new type of personality developed by the sailors of Ionia(12). It is very significant that the new "cult of individuality" as it is first raised in Ionian poetry, is not expressed in the modern manner as the subjective, private experience of an individual. On the contrary, as in the poems of Archilochous, for example, personal emotions have nothing purely subjective in them. The whole intelligible and in this sense objective world and its laws are represented in their expression. The individual tries to discover his own inner laws by being actively related to both, the natural and the political world(13). The notion of justice plays a decisive role in this process.

Within the new socio-cultural milieu, political struggles began. The people demanded written laws. The word justice, *diké*, became the war-cry of the class-conflict, and the supreme virtue in the newly born city-state(14). Etymologically, the word *diké* belongs to Greek legal terminology and means due share, judgement and penalty. It is no less old than the word *themis* that also means justice, and signified the fundamental rules of public law in the oldest days. Homer usually uses *themis* in order to describe justice: Zeus gave the Homeric kings "the *sceptre* and *themis*". *Themis* is confined rather to an inevitable authority of justice imposed on the common people from above; while *diké* means the legal enforceability of justice, equality in front of the law, and is seen as the very essence of the

freedom of the individual(15).

Simultaneous with the struggle for justice in the political field - and actually inspired by it - was the praise of justice in the *cosmos* by the early Greek philosophers. Gregory Vlastos, in exploring the notions of equality and justice in the early Greek cosmologies(16), states that the early Greek notion of justice was applied far beyond the bounds of politics and morals. Cosmic justice was conceived by the founders of Greek scientific thought as a harmonious association of nature, ordered by equality. The functions and attributes of the ancient gods were transferred to nature *(physis)*. The order of nature is maintained because it is an order of equals. The conception of the main components of the Universe as equals was an old tradition in popular cosmology as we can deduce from the poems of Homer and Hesiod. In these poems, equality is a non-rational concept, for the determining agency of the relation of the equals remains hidden from human reason. Through the adventurous spirit of the Ionian philosophers *physis* was detached from the personal control of supernatural beings. Its order was deducible from its own intelligible properties(17). Equality was the essence of this transformation "for it meant the abolition of distinctions between two grades of being - divine and mortal, lordly and subservient, noble and mean, of higher and lower honour. It was the ending of these distinctions that made nature autonomous and therefore completely and unexceptionally "just""(18).

In the context of *polis* nevertheless, the conception of justice as a cosmic power is not of a major importance(19). Certainly justice is a divine power, but it is also a human device that applies solely to the acts and relations of conscious beings within the social order. Solon, the Athenian legislator, considered the operation of justice in this way. In contrast to the Homeric and Hesiodic justice of "religious pollution", which lies beyond the understanding of the ordinary man, Solonian justice is intelligible in principle, but without losing its old divinity(20). This divinity however, as is clear from Solon's fragment 4, is described strictly through the observable consequences of human acts within the communal realm: the vindication of justice comes "like an inescapable plague upon the whole *polis;* swiftly the *polis* falls into evil bondage; bondage stirs up strife and slumbering war; war destroys many in the beauty of their youth"(21).

Beyond that, Solon's reason is not based on the dialectic relation of pairs of equals - as in the pre-Socratics - but on a causal relation. So, for him the sea is not double-natured, capriciously shifting from one mood to its opposite (as Semonides of Amorgous had pictured it); Change is not arbitrary and disturbance is not the natural, "just" state of the sea: "if someone does not move it, it is the justest of all things"(22).

In the human field, Solon thinks of harmony as a relation between unequals in terms

of social causality. The common peace and the common freedom are the two basic ideas of this relation(23). Their preservation makes justice a matter of common concern as the causal conception of justice in terms of the human intellect forms the unavoidable precondition of individual freedom, and thus opens the horizon for the public universe of discourse to operate.

1. 2. DIVINE AND HUMAN LAW: A TWO-FOLD CONCEPTION OF JUSTICE IN THE *POLIS*

Considering old and new beliefs as they appear in the law of the Classical city-state, one can discern two main, apparently irreconcilable aspects.

On the one hand, old elements were incorporated in the new law of the *polis*, as existing customs were formulated in parallel with new ordinances, by the first legislators(24). The divine nature ascribed to the *nomos* is therefore partly justified by this double origin. *Nomos* is a man-made, written law. It bore the name of its author: Solon's law, Cleisthenes's law. It could be incorporated in the body of legislation only if the people had voted for it. The *nomos* was the common measure which procured the greatest sum of equality and the greatest sum of individual liberty(25). It not only protected the citizens one against the other, but also defended the rights of individuals against the power of the state and the power of the state against the excesses of individuals. Aristotle declared: "there is no order outside the law"(26).

On the other hand, the old, sacred *thesmoi* and the new *nomos* persisted side by side. Although logically incompatible and often contradicting each other, the two laws appeared to harmonize tolerably well in practice. *Thesmoi* were introduced into the *diké* of the city as the new face of the ancient *themis*. *Thesmoi* were rules of an essentially religious nature, imposed by the gods, for eternity. As such, they are sacred and immutable. They dealt with religious and criminal matters, political relationships etc., serving as ritual prescriptions and legislative enactments. They were transmitted from generation to generation by oral tradition. Due to their transcendental authority, *thesmoi* offered no justification for their content, and any alteration of them was prohibited. The old belief in the supernatural power of *thesmoi* remained, throughout the Classical age, particularly attached to criminal law(27).

In opposition to *thesmoi*, *nomos* had no absolute value; it was a relative and conventional thing, subject to change each time the need was manifested. In practice nevertheless,

the *nomoi* altered only slightly, because a religious power was ascribed to them. The *nomoi* for the Athenians of the fifth century implied the laws of Draco (621/20), Solon (594/3), and Cleisthenes (508/7). The Assembly of the People, *Ecclesia*, did not take to itself the right of formally abolishing these laws and making new ones, but, evading this principle, it invented the necessary forms for legislating by decree *(psephisma)* (28). Usually, occasional measures were taken by means of decrees; some decrees nevertheless had the power of a law.

The precautions taken in the fourth century when the Athenians appointed a commission to renew the principal laws of Draco, are characteristic of the sacred power of the *nomoi* and their harmonization with the public will: "The author of this sacrilegious and revolutionary proposal must purify himself of the curse of the gods and the punishment of men which the change of *nomos* brings upon himself, and appear at the People's Assembly as beseecher, seeking for grace in advance, which can be rendered by a complete Assembly only, through a secret voting and with a minimum majority of six thousand"(29).

The sacred nature of the human law can be attributed partly to a bequest by the divine laws of the past centuries and partly to the universality of reason as an objective, all-comprehensive measure of judgement in the common experience of the *polis*. Aristotle, discussing in the Politics this double nature of *nomos*, stated: "He therefore that recommends that the law shall govern seems to recommend that god *(theos)* and reason *(nous)* alone shall govern, but he that would have man govern adds a wild animal also; (...) Therefore the law is wisdom without desire"(30). Emotion has nothing to do with the *nomos* which has to secure the reign of reason.

Heraclitus, attributing to the law a sacred character, declared: "The people ought to fight for the law as for the walls of their city"(31); evoking that beyond the visible elements of a city there is, invisible, the *nomos*, the essence of the *polis*, which provides it with a supranatural power and relates it to the gods. This divine nature of the human law in the Classical city-state, appears dramatically personalized by Socrates in Plato's *Crito* (32). As Socrates poses it, the *nomoi* are the quintessence of the *polis*. He who violates the law destroys the idea of the *polis*. Every citizen is beholden to the laws for his birth and education. It is his duty to execute its orders even though he believes that they are unjust, unless by legitimate means *polis* is induced to change its decision. He is free otherwise to renounce his civic rights and leave. Socrates, choosing to die although he knew that the *nomos* in his case was wrong, attributed the greatest respect to the *polis* and its suprahuman nature.

To use Jaeger's words, "the *polis* was a universal with a religious basis. (...) the new

areté (excellence) of the *polis* is an expression of a change in Greek religious ideals. The *polis* has become the epitome of all things human and divine"(33). *Nomos* was the order inherent in *polis'* own nature, which was all-sufficient into itself.

1. 3. INDIVIDUAL FREEDOM AS THE MOTIVE POWER IN POLITICAL DIALECTICS

In the mid-fifth century B.C., the concept of *polis* reached its most perfect actual form in the Athenian city-state. At that time, the public or political life of the Athenians was characterized by the maximum amount of equality among the citizens, harmonized with the maximum amount of individual liberty. This form of political justice was achieved gradually. First Solon established the foundations for individual freedom(34). He abolished the enslavement of a debtor because he was not in a position to pay his debts. So in no way could a citizen become a slave any more. By other classes of reforms, he rendered the land owners free to bequeath land outside the *genos* in the absence of legitimate male issue, and greatly reduced the father's ancient power of life and death over his children. By the diminution of the power of the noble families, through these and other measures, Solon came very close to establishing liberty on equal terms for all. In his *politeia, eunomie* (good distribution of justice) is the resultant of two opposing tendencies: the one, the rational *diké* of the *polis*, as the radical principle of the reconstruction of the Athenian institutions; and the other, the suprarational *moira* of private wealth, as the restraining principle of his conservatism. Property is the absolute, god-given precondition of political justice: he fixed political inequalities according to four income classes(35).

About a century later, by Cleisthenes' reforms, political justice is emancipated from property, and *isonomia* (equality in front of the law) became a common possession. All citizens have the same rights. Everyone can enter the Assembly *(Ecclesia)* to speak and to vote. Every citizen can present himself as a candidate for the Council *(Boulé)* and the other offices, or sit in the Helaea as judge with age the only qualification. Everyone by turn is compelled to obey and permitted to command(36).

This special relationship between action and being together in the *polis*, that belongs to every individual, gave man "besides his private life, a sort of second life, his *bios politikos*. Now every citizen belongs to two orders of existence; and there is a sharp distinction in his life between what is *his own (idion)* and what is *communal (koinon)*" (37). However, the early translation of Aristotle's *zoon politikon* by *animal socialis*, already found in Seneca, which became the standard translation in Western thought through

Thomas Aquinas, betrays that the original Greek understanding of politics had already been lost(38). Aristotle's intention was not simply to indicate the natural, merely social companionship of the human species, because this is something human life shares with animal life and for this reason alone it could not be fundamentally human(39).

In the *polis*, freedom was exclusively located in the political realm, from which everything merely necessary was strictly excluded. The mastering of the necessities of life which ruled over the household organization was a condition for political freedom but not an essential constituent of public life. The household organization was primarily a prepolitical phenomenon, whose power was reduced by the rise of the city-state. In no case did politics exist as a means to protect society as in the Modern society of jobholders, for example. In Modern times, freedom is located in the realm of the social and in this sense it requires and justifies the restraint of political authority(40). What the Moderns call "society" could be described as "the collective of families economically organized into the facsimile of one super-human family", and "its political form of organization is called nation"(41).

In contrast to the notions of intimacy and intersubjectivity which designate modern man as individual, in Classical Greece political life existed for the sake of the individual. In the *polis*, dealing with the communal things, someone could distinguish himself from all others through unique deeds or words. *Isonomia* was the condition for this liberty. In the Athenian democracy of the fifth century, freedom and equality appear as the two principal forces which describe the relation of the individual to the community. The interplay aimed at a common agreement of equal citizens, stimulated by individual initiative on the ground of the stability provided by *nomos*, underlies the experience of progress in the political realm of the city-state. The freedom of the individual is the reciprocal power that mobilizes and modifies the communal will without being a compulsion originating externally to the political community. It is immanent in it, deducible from it, and manifested through political reasoning. Persuasion through speech is the main form of expression of individual liberty in the realm of *polis*. The Aristotelian definition of man as "*a zoon logon ekhon*", [an animal capable of speech (logos)] reflects the fact that man can exist as a *man* and so gain "the possibility of immortalizing"(42) only by taking part in political life.

1. 4. POLITICAL *ARETE* AS THE OBJECT OF KNOWLEDGE

The *polis* was, in the eyes of its citizens, the only place where life was worth living. *Politeuesthai* literally meant "take part in political life"; besides that, it simply meant "to live"(43); for the two meanings were one and the same. It was compulsory for every citizen to take an active part in the public life of the *polis*. Legislative, judicial, and executive power were under the control of the Assembly of the citizens(44). The due use of this power called for professional knowledge and opened the way to political philosophizing.

In the early city-state however, obedience to the law, *ethos*, was a far more important qualification for an ordinary citizen than knowledge of the administration and the aims of the state; in the sense that politics had never been considered to be a principally intellectual problem(45).

The distinction between what could and what could not be an object of knowledge originated in Ionia where in the sixth century Xenophanes declared that "no man has ever had, or ever will have, sure knowledge about the gods; even if he should have the chance to hit on the exact truth, he cannot *know* that he has done so, though we can all have our opinions"(46). Though the question of "personal" or "private" religions raised here seems to anticipate the Modern conception of individualism rather than the Classical one, the distinction between what is knowable and what is not became a main issue in fifth century philosophical thought.

In the early philosophers, as well as in Socrates and Plato, the question about the right way to live was never dissociated from the metaphysical question about being. Aristotle first, in his classification of sciences *(epistemai)* differentiated the question of being as such from all the other branches of knowledge: the question of being became the theme of the "first philosophy", and established the basic conceptual framework for all the other branches of theoretical knowledge(47).

The assertion that political *areté* must be emancipated from tradition and constitute an object of knowledge was first raised by the Sophists in the fifth century(48). Protagoras in particular, the first professional educator of politics and citizenship, gave wide publicity to the view that "*areté* (political excellency) is teachable". Protagoras believed that by criticising the traditions, and modernizing the laws, the rising generation of Greek statesmen could acquire a new "art of living", higher than ever. The material and spiritual flowering of Athens at that time, culminating in the Periclean achievements, had cultivated the belief that progress was inevitable. The Sophists' attempt to teach political *areté* was a direct reflection of this situation.

Plato, in the dialogue *Protagoras,* developing the moral theme of acquisition of virtue, *areté,* describes a philosophical debate between Socrates and Protagoras that took place in 432 B.C. "Good" means for both "pleasant for the individual", "not according to the operation of the actual pleasure of the moment, but owing to the later results in disease and in other ills"(49), and is not distinguished from the "profitable" or the "useful"(50). They both agree, against the common opinion of their time, "that whoever learns what is good and what is bad will never be swayed by anything to act otherwise than as knowledge *(epistemé)* bids, and that intelligence *(phronesis)* is a sufficient succour for mankind"(51). Socrates then proves that *areté* is knowledge, so it is teachable, while Protagoras agrees with his reasoning.

Independently of where their purely logical argument led them however, each kept his own reservations about the relation between *areté* and *epistemé:* Protagoras believes that *areté* can be taught not by an intellectual discipline but through habituation, "cultivation in virtue" "from earliest childhood"(52). Socrates, in opposition to Protagoras, doubts whether *areté* can be taught at all, while he believes that *areté* (justice, temperance, and courage) is *epistemé.* Most probably, this contradiction emerges from Socrates' belief that *arete* must be the outcome of a dynamic attitude of the human mind trying to comprehend man and nature; in this sense, the acquisition of *areté* depends rather upon one's own self than on teaching by others(53).

In this dialogue, Socrates as well as Protagoras, dismisses the role of emotion in determining human behaviour. An immediate pleasure or pain can lead to false decisions, analogous with the errors of visual perspective. This view however has nothing to share with the opinion generally held by the common Athenian of that time. "Most people" says Socrates, think that knowledge "is no strong or guiding or governing thing; it is not regarded as anything of that kind, but people think that, while a man often has knowledge in him, he is not governed by it, but by something else - now by passion, now by pleasure, now by pain, at times by love, and often by fear; their feeling about knowledge is just what they have about a slave, that it may be dragged about by any other force"(54).

Plato in his last work, *Laws* (357/47), reconstructing the early city-state, proposes political and ethical reformations. Dealing with (political) *areté,* he revives the world of *Protagoras* by refusing to separate the pleasant from the just(55). Political education is training in *areté* from childhood; "devoid of reason *(nous)* and justice *(diké),* it would term vulgar and illiberal and utterly unworthy of the name "education" "(56). Reason *(nous)* is for Plato the supreme divinity, the ruler of the universe, and, law *(nomos)* the dispensation of reason. In the Platonic state therefore, political *arete* is not a special branch of knowledge - as it was in *Protagoras* - but the metaphysical understanding of universal

questions.

Born in the golden age of Athens and educated in a social circle of intellectuals, Plato adopted the belief that "virtue", *areté*, consisted essentially in a technique of rational living(57). The tragic fate to which imperial Athens was led however by the principle of rational self-interest after the Peloponnesial wars, as well as the Socratic flouting of that principle at the expense of death, compelled Plato to transform the meaning of his systematic and argumentative way of thinking by giving a place to intuitive knowledge.

Reason and justice conceived as common principles of the universe, the city-state and the human soul, reveal the attempt of Plato to redefine human existence in terms of a universal language. The breaking down of the self-sufficiency of the individual on the ground of knowledge *(epistemé)*, marked the end of the Classical age in Greece. Simultaneously, the excesses of individualism destroyed democracy and the city-state.

1. 5. CONCLUSIONS

To sum up what we have tried to show in this chapter, the *polis* can be described as an entity ordered by its own inherent law - political law. It was formed gradually, on the basis of tradition. The genesis of the *polis* is fundamentally related to the freedom of the individual. The notion of individual freedom, which can be traced back to Ionia in the eighth century, resulted in the search for "objectivity" in the political and natural world. Man tries to comprehend the order of nature and the human state in intelligible terms, deducible from their own inner properties. Justice based on equality is conceived as the order of the *polis*, with cosmological extensions through the work of the early Greek philosophers. A dialectical relation of equals was first applied to the relation of the universal bodies and elements by the philosophers, while in the human field, Solon through a causal way of thinking emancipates man as individual.

The justice of the *polis* appears as a semi-human, semi-divine creation. As a whole it is sacred, with very little possibility of change. In fact, changes are common but in the form of provisional measures (decrees). The present is conceived as a prolongation of the past rather than an anticipation of the future. Old and new laws, in force, side-by-side, were often contradictory but harmonized tolerably well in practice. Justice regulates the appropriate distribution of specific equalities and freedoms in a context which is slowly but continually changing. This context is the communal realm of the *polis*, the political realm.

Equality in the political realm is gained gradually, through a process of rationalization of the law. This equality among the constituents of the state formed the necessary ground for a dialectical process to operate. Individual freedom, coming in the political field from within, stimulates this process. Through this, *polis* is subject to change. Political philosophising has to become a common possession for providing the individual with the maximum dynamic, self-controlled attitude - within the limits of its nature - in order to participate through his best intelligible self in political decisions. This special way of governing the state was the highest standard for human life and coincided with the divine government of the universe.

CHAPTER TWO

THE CLASSICAL TEMPLE AS A SYMBOL OF THE SPIRIT OF THE *POLIS*

2. 1. INTRODUCTION

Man's attempt to comprehend the world and his own self on the basis of nature's inner properties, as it was first expressed in early Greek poetry and philosophy, marked the end of the dark transitional period from the prepolitical, monarchical social organization of Mycenean times to the political, democratically oriented organization of historical Greece. The genesis of the *polis* at that time, coincided approximately with the appearance of the Classical temple, as is evident mainly from archaeological research.

In the architectural context of the *polis*, throughout the Classical period and at least until the Hellenistic and Roman age, the temple of the patron god appears to occupy the most prominent place. In the city of Athens, for instance, in the fifth century, the Parthenon - the temple of Athena - overlooked the whole city and dominated the *agora*, the place of political congregations of the citizens. Public buildings of a secular character were not yet much developed(1). Moreover, all forms of public life were in a very close association with the religious places: the *agora* was a sacred place and most of the religious buildings were placed there; the theatre in most times belonged to a sanctuary of Dionysos, the *gymnasia* were attached to various shrines. Chapels and religious symbols were placed everywhere, on roads, in court-yards, in front of house-doors, in public places and on the *orchestra* of the theatres. In fact there was no clear line between religious and secular in Classical architecture(2). Precise demarcation of the sacred parts of the city was alien to the Classical conception of political and religious life as interrelated fields epitomized in the divinity of the *polis* itself.

Every city was dedicated to a god. The temple of this god in almost all cases was built in the place in which the religious and administrative centre in the Bronze age had

been; the *megaron* of the Mycenaean palace is generally considered its architectural predecessor(3). This fact by no means indicates that the principal symbol of the old world was transformed to the symbol of the new one as a manifestation of the sovereignity of the latter; it rather expresses the unity and continuity between the two worlds. Moreover, there is no archaeological evidence that a Bronze age building was used to serve the cult from the eighth century onwards(4). The high respect given to the authority of tradition, and the still living religious feeling, are the main reasons for which the temple, obviously a religious building, became the symbol of a politically oriented society. Otherwise it would appear more natural that the most prominent and sacred place of the Mycenean age should be occupied by the *prytaneion*, the House of the Premiers of the city. Actually, the old, principally religious, and the new, principally political, social order in Classical Greece, considered as absolutes, seem mutually exclusive. In the case of the *polis* however, their fusion and ultimate harmony proved possible.

It is this ultimate, ideal harmony that the Classical temple manifests: the harmony between God and Reason, between intuitive and argumentative knowledge as they had been expressed in the justice and the political life of the city(5), find their resolution in the form of the temple. The main constituents of the cultural realm of the *polis*, like the two-fold conception of justice as a semi-human, semi-divine creation; the dialectical relation between equal individuals in the political field of the *polis;* and the desire for a dynamic attitude of the human mind towards political philosophizing, were all manifested in the temple.

This chapter deals with the way in which the cultural identity of the *polis* was mirrored in the form of the temple. The process of evolution of the form of the temple is investigated through its religious and political levels of meaning as well as the interaction between them(6). This investigation provides the basis for a discussion of the dialectical interplay between the temple's essential autonomy and the freedom of the individual artist, in Classical times. A critical presentation of the major current approaches towards the problem of the *genesis* of the temple, will be given first.

2. 2. CURRENT APPROACHES TO THE COMING INTO BEING OF THE CLASSICAL TEMPLE AND THEIR CRITICISM

The most widely accepted current approaches as far as the coming into being of the Classical temple is concerned, seem to be those adopted mainly by archaeologists, on an empirical ground. We will use the term "empirical" to indicate them in the discussion

which will follow.

Empirical approaches attempt to explain the genesis and evolution of the temple as a consequence of changes in the practical aim which the temple serves, or of technical changes, like changes in the building material. They do not claim to be exhaustive and systematic studies of the subject, but simple conjectures deducable from archaeological findings and not in contradiction of the literary evidence.

We will exemplify these approaches by a brief account of the writings of A. W. Lawrence on the birth of the Classical temple(7). According to Lawrence, on a technical level the earliest temples were much inferior to the Bronze age *megaron*. Their walls consisted of sun-dried brick raised upon a rubble base and strengthened with a timber frame; they were of the same construction as the *megaron*, but thinner. The most important divergence from Bronze age precedents was the addition of a verandah around the cella; no Bronze age building has been found completely surrounded in that manner. Only the courtyard of many palaces had been lined about with verandas. The surrounding verandah as Lawrence proposes, had a practical purpose: namely, to protect the mud walls from the rain. When in the seventh century the entire structural and ornamental system made of wood and mud, was translated into cut stone and roofing tiles, the Classical temple took birth. The surrounding wooden verandah was replaced by a stone colonade, although the walls of the cella being of stone no longer needed a shelter.

Stone-building techniques may have been adopted from Egypt, Lawrence continues, but a compelling reason for the use of stone was provided by the invention of roofing tiles(8), which were much heavier than the modern ones. Another result of the use of roofing tiles was the rectangular plan, since a rectangular roof is most easily tiled. The gable created at the end constituted the pediment, which is probably an innovation of the stone temple.

As far as the proportions and measurements of the columns and the other members of the temple are concerned (as Lawrence attempts to explain in a similar way), the stone temple in the beginning followed the measurements of its wooden predecessor, but soon it was realized that when building in stone, the greater weight and the lack of tensile strength demanded thicker proportions. When more experience had been gained, the proportions became more slender, with aesthetic improvements. After constant progress, marble came into use whenever financially possible and its capacity for sharp definition and polished surface was fully exploited by the architects of the late fifth century.

Lawrence, thinking on an empirical basis, seems to ground his arguments on a deductive method according to which protection from the rain always leads to the construction of

a surrounding portico; a heavier roof to the replacement of mud walls by stone ones; growing technical skill to specific aesthetic improvements. His underlying assumption is that the form of the temple and the way it evolves is principally the outcome of technical and practical requirements and that these requirements have only one solution. Nevertheless, differences of form - such as as those between the Classical and the Byzantine Greek temple for instance - could not be explained in this way, in isolation from their socio-cultural context. It is obvious that the empirical qualities most needed for observation in the field, such as the kind of wall probably required in order to support a certain roof, tend to have counter-balancing deficiencies when they are applied to more general theoretical issues, such as the coming into being of a particular artifact.

The fragility of the arguments of this kind of approach has led some archaeologists to look for some historical dimensions beyond the merely empirical in order to conceive how the Classical temple was born. J. J. Coulton, for instance, stresses the fact that during the three ċenturies of the Dark age the monumental architecture of the Bronze age had been dead and the building techniques lost(9). He proposes that the monumental effect as well as the surrounding portico of the Classical temple are a Bronze age revival based on surviving ruins and on oral tradition. The portico especially, he says, might be the result of a "misinterpretation" of the Homeric descriptions of the courtyards of Mycenean palaces(10). Thus he originates Classical architecture in a romantic attitude of the eighth century Greeks towards a mighty past, and - more or less - upon a misinterpretation of that past.

Misinterpretation of a heroic past or not, the form of the Classical temple remained almost unchanged from the eighth century down to the Hellenistic age. If we accept that every age in history is characterized by its dominant spirit, and the Classical temple is the material manifestation of the dominant spirit of the Classical age, anyone who attempts to explain the matter must take into account that any theoretical formulation about the identity of the temple raises a major issue concerning the identity of the whole period. The way in which the Classical age interpreted the past was, most probably, different from the way in which the past conceived its own self, due to the very reason that each age is characterized by its own modes of existence. Possibly the Classical temple was an interpretation of the past as it was viewed at the dawning of the new age; but this in no case indicates a morphological misinterpretation or false copying of modes of the past as Coulton suggests.

The archaeologists, through a narrow perspective based upon technical and practical developments, describe the formation of the Classical temple as the most natural and self-evident thing that could have happened with given materials, climatic conditions and technical skills. Even Coulton's attempt to introduce a historical dimension proves limited within the empirical orientation of the archaeologists.

The inadequacy of any of these approaches to deal with the form of the temple has been viewed here as a result of two factors: first, a refusal to consider architecture in terms of its cultural and political milieu; and second, a failure to interpret the Classical temple with regard to the autonomy of architecture as an independent and distinct cultural entity.

The approach adopted in this thesis is to consider Classical architecture as an organic part of certain cultural processes within Classical society. Religion, philosophy, law and politics as well as the way they interrelate and evolve, will constitute the frame within which the formation of the temple will be investigated. Thus the spirit of the Classical age, its *Zeitgeist*, will be explored in its multiple aspects, with the central issue an enquiry into its embodiment in architecture.

The unique way in which these cultural processes interacted with each other to give birth to the Classical temple, define the autonomy of the temple in relation to them. This autonomy is the very essence of the temple. Furthermore, each Classical temple is a separate, distinct interpretation of its *eidos* by an individual artist carrier of cultural values in the realm of the *polis*. Every new temple will here be considered to constitute a transformation into the structure of its *eidos;* in the sense that with every new temple the *eidos* becomes suddenly and as a whole something else which is also lasting and true. This interplay between the *eidos* of the temple and the artist, in which the artist participates as a representative of the social state each time, indicates the absolute autonomy of the notion of *eidos* in the Classical temple. The approach to the form of the Classical temple proposed through this thesis, is built up in relation to this hypothesis.

2. 3. *IDEA* OR *EIDOS* AS THE ORIGIN AND THE BEING OF THE CLASSICAL TEMPLE

2. 3. 1. THE METAPHYSICAL CHARACTER OF THE NOTION OF ORIGIN IN CLASSICAL TIMES AND OUR SHIFT TO THE QUESTION OF MEANING

Setting out to approach the spirit of the Classical age as it is embodied in the temple, we are first confronted with the question of the origin of the temple. We shall start our investigation with an enquiry into the origin of art in Classical times. For the Classical age, as we are going to argue here, the role of art as the procedure that brings the work into being is minor in contrast with the emphasis it has been given in Modern times, with their focus on the role of the artist. What matters in a Classical work of art is the two ends

of the artistic production: the essence of the particular work as its origin, and the outcome, the work as such. The eternal character of Classical culture is as significant in its art and philosophy as is the scientific conception of time as the fourth dimension for Modernity.

We shall try to illustrate briefly this distinction. It is extensively discussed in Part Two of this thesis, by a reference to the Modern attitude, through the way Heidegger treats the problem of the origin of the work of art. The word origin is used by Heidegger in the sense that: "Origin is the source of the nature in which the being of an entity is present"; or, elsewhere: "To originate something by a leap, to bring something into being from out of the source of its nature in a founding leap - this is what the word origin means"(11). Exploring the origin of the work of art in an essay with the same title, he points out that the origin of a work of art, the source of its essence, is the essence of art itself, is art. For Heidegger, art is by nature an origin of the establishment of truth, truth taken in the sense of the revelation of the being of what is. So art is "a distinctive way in which truth comes into being, that is becomes historical"(12). The revelation of truth according to Heidegger is achieved through the strife *(Riss)* between artist and work, or content and material of a concrete work of art. In this way, the ontological level although departing from a meta-physical standpoint, is gradually moving closer to empirical reality.

Adopting the conception of truth as historical and thus strictly interrelated with a particular culture, we will proceed to the investigation of the way in which the problem of the origin of the work of art has been treated throughout the Classical age. We assume that the ontology of art throughout the Classical period is, in a general sense, as it was conceived by Plato and Aristotle. Interconnected with the question about knowledge of the true nature of things, it became a main theme in the philosophical thinking of Plato and Aristotle.

Plato and Aristotle both agree that man cannot have knowledge of particular things, unless they "contain" - for Aristotle - or "exist in virtue of their relation to" - for Plato - something universal, some one and unchangeable entity(13). The words *idea* and *eidos* have been used indifferently by Plato and later by Aristotle in order to denote such entities(14), which constitute the causes both of existence and of generation of the particular things(15).

Plato conceived of the *ideas* as eternally existing in the realm of invariable generalities beyond the sensible things. They are the objective principles of the cosmic nature. Beauty, Truth and Goodness, ultimately fused into One - Goodness - constitute the meta-physical Platonic reality; Beauty is a moral rather than an aesthetic virtue. The relation of this reality to the sensible world appears in Plato's works in two ways, which, however, contradict each other:

In the Cratylus, the Republic and the Laws, the sensible world, and art in particular, are related in an antithetical sense to the world of *ideas* through *mimesis* (imitation). Everything sensible is a mirror image of an *idea,* a *mimema;* and while the one is relative and perishable, the other is absolute, everlasting and true.

In other works, for instance in Ion, Phaedrus and Symposium, the relation between the actual and ideal world appears as a synthesis which takes place on the transcendent plane of the *ideas*. In the Symposium, man partakes of the *idea* of Beauty and of God through *eros,* and desires full knowledge of it, achieved through an ultimate fusion, *mathexis* (participation). And as Aristotle states in the Metaphysics, Plato held that all sensible things exist by participation *(kata methexin)* in the *ideas* (6). The revelation of the *Idea* through participation, is the outcome of a strife of reason.

In the case either of imitation or of participation, the Platonic *idea* maintains a transcendent standpoint, in the sense that the true being of things is something outside and beyond the sensible world. There are some instances in the Symposium though, at which this qualitative distance seems well bridged on a very human level; man partakes of the *Idea* by virtue of the perpetual process of change he is undergoing:

> Nay even in the life of the same individual there is succession and not absolute unity: a man is called the same, and yet ..., he is undergoing a perpetual process of loss and reparation ... Which is true not only of the body, but also of the soul ...; and equally true for knowledge ... And in this way, Socrates, the mortal body, or mortal anything, partakes of immortality(17);

The character of knowledge as a perpetual process is basic in Plato's investigation of truth throughout his work and interrelated with the fact that he finally never arrives at definitions, although this is what he seems to aim at. It seems that the *Idea* is an originative source that stimulates a constant "feast of thought"(18) rather than an end to be gained.

In the philosophical thought of Aristotle however, quite the opposite happens. He accuses Plato that by indulging in "empty phrases and poetic metaphors"(19), he indeed says nothing about what individual things really are, what constitutes their substantiality, and declares: "The process of evolution is for the sake of the thing finally evolved, and not this for the sake of the process"(20). The notion of *enteleheia* underlies this concept: every individual thing carries its principles within itself, within its substance. The principle of form - *idea* or *eidos* is absolute and eternal, and it generates each particular in a way similar to that in which the seed produces natural formations:

(...) all artificial things are generated either from something which bears the same name as themselves [e.g. a house from a house, inasmuch as it is generated by mind; for the art is the form *(eidos)]*, or from something which contains some part; that is if the generation is not accidental; for the direct and independent cause of the production is a part of the product. (...) And it is the same with natural formations as it is with the products of art. For the seed produces just as do those things which function by art. It contains the form *(eidos)* potentially, and that from which the seed comes has in some sense the same name as the product ...(21).

Eidos or essence carried from one individual to another of the same species through reproduction, is not generated. What is generated is the substance, the individual concrete whole that is called after its *eidos* (22). The role of the mind of the artist in the generation will be explored in part 2. 3. 3. of this chapter. The combination of *eidos* with matter, or of actual form with potential form, results in the substance, the particular thing(23). Neither form, nor matter as conceived by Aristotle exists in the corporeal world alone; both derive from the sphere of inner perception(14). Moreover matter does not exist at any stage of a generation as entirely undifferentiated; through successive stages of differentiation, to each of which there is a corresponding form, the final, individual substance emerges.

Idea or *eidos*, whether in Plato's or Aristotle's sense, taken as the origin and the essence of the temple, constitute metaphysical boundaries, absolute pre-suppositions in any discussion of the problem of origin; for, as Aristotle poses it, they indicate "the ultimate subject, which cannot be further predicated of something else"(25). The absolute autonomy of the notion of *idea* or *eidos* from man and the sensible world consists in its universal and immutable character.

Nevertheless, as Aristotle suggests, this autonomous existence is approachable by us only through its corporeal expressions. And to go even further, the *idea* or *eidos* of the temple being interdependent with its actual manifestations, is essencially historical: it appears within a particular culture at a particular time. Thus it must be grasped within its own historicity(26).

The Classical temple originates in myth and has been introduced into the corporeal world by the gods. The very autonomy of its essence lies in the fact that however much it is changed through its particular sensible manifestations it remains itself. Despite the absolute character of its essence nevertheless, this essence, the *idea* or *eidos*, could only be grasped through the meaning of the particular temples as a fusion of their past and present

within their historical context, as a fusion of religious tradition and political life within the city-state.

The discussion about meaning presupposes the corporeal existence of the particular work. As such, the function of interpretation is always posterior to the generic function(27). Yet, this meaning is bound to be relative to our contemporary world view as it is represented by the author of this thesis, inevitably as a contemporary interpreter. Otherwise, the question about meaning would be senseless. The relativity of our knowledge, rather than making the notion of truth irrelevant, guarantees - as Gadamer argues departing from Heidegger - the truth of the interpretation(28). The truth as it is understood here is approachable not through scientific method but through phenomenological understanding(29), conceived as historically conditioned and thus objective and true(30). The dialectic between the "prejudices" of the interpreter due to his own historicity and the "openness" of the subject-matter in the sense of allowing it to speak for itself, allows distorting prejudices to be discovered and objectivity to be arrived at(31).

In the next three parts of this enquiry, the relation of the *idea* or *eidos* to the particular work, the artist and the social milieu will be explored, and illuminated by reference to contemporary to the temple theory. Thus a descriptive approach to the intrinsic features of the *idea* or *eidos* will be taken. Moreover, this approach will be limited to the relation of the *idea* or *eidos* to the individual works, the artist and the social milieu, since the risk of falling into arbitrary aesthetic abstractions is always there due to the metaphysical nature of the problem. Taking this investigation as a guiding conceptual framework, we will proceed to the meaning of the *idea* or *eidos* (genus) of the Classical temple with reference to the religious and political dimensions of the *polis*. The unity of the aesthetic with the religious and political dimensions of the temple is considered as given *ipso facto*, as will become clear from our discussion of the role of the artist and the society in artistic creation in the Classical era (in parts 2. 3. 3. and 2. 3. 4. of this chapter).

2. 3. 2. RELATION OF THE PARTICULAR TEMPLES TO THE *IDEA* OR *EIDOS*

2. 3. 2. 1. RELATION OF THE PARTICULARS TO THE *IDEA* OR *EIDOS:* A THEORETICAL DISCUSSION

The relation of the particular to the universal taken as "imitation" in the Platonic sense, indicates a development of the particular towards its *idea*. As far as the *idea*, the absolute and immutable essence of any particular within a species, exists apart from its

particulars, it is not affected by this development. Thus, the particulars of the temple, for instance, can change, while their essence remains itself and separate. This change is an upward process, a perpetual approach to the *idea.* It seems, however, that a counter-process, away from the *idea* is also implied in the Platonic conception of imitation.

On the other hand, the Platonic concept of "participation" of sensible things in the *Idea* is based upon the assumption that some kind of participation in the *Idea* exists from the beginning and motivates a desire for full participation(32). In this case, an evolution of the particulars towards full communion with the *Idea* occurs; the *Idea* remains itself, but it can - partially though and incompletely - be identified within its particulars. The degree of participation varies from one particular to another. So we could say that a particular temple has a being in itself, in virtue of its participation in the One, the divine being, the *Idea;* yet, it evolves towards full participation.

Aristotle, declaring that he cannot see any difference between "imitation" and "participation"(33) - as far as in both cases the *idea* remains on a transcendent plane -, proceeds to the restoration of the particular as an *ipso facto* carrier of the *eidos. Eidos* is identified with essence: "By *eidos* I mean the essence of each thing, and its primary substance"(34).

As with the Platonic *idea,* Aristotle's *eidos* maintains an absolute, unchangeable nature. But it is closer to the sensible world, in the sense that it does not exist apart from its particulars. That which causes the individual differences between particulars is not change within the *eidos,* but the potentiality for endless corporeal manifestations inherent in it. No kind of evolution is indicated by Aristotle's conception of the relation between particulars within an *eidos;* at least no more than that suggested by reproduction through seeds, if any. He is finally obliged by the sensible reality however, to admit stages of development towards a final *eidos;* each stage of this process is characterized by its own *eidos* (35). The continuity of the processes is maintained by an eternal and immutable cause, the Prime Mover(36). This multitude of *eide* with no clearly discerned boundaries between them (as we shall see in detail with the case of the temple(37)), seems to us to be a weak point in Aristotle's theory, in contrast to Plato who overcomes it through the conception of the *idea* as a transcedental entity. Applying Aristotle's conception to the temple however, we can generally say that each temple carries its *eidos,* its being within itself. This *eidos* is the same in all temples of the same stage of evolution; every variation between particular temples is potentially inherent in their *eidos.*

The finite nature of the particulars caused their principles, the *ideas,* to be connected with numbers. Plato's and Aristotle's arguments about the relation of *ideas* to numbers originate in the Pythagorean principle of Unity and the Dyad, or Limit and Unlimited. The

all-embracing principle of Unity must be limited in order to be reproduced in the individual nature. This is why the Pythagorean principle of goodness and order was identified with Limit, as contrasted with the principle of disorder, the Unlimited. Order consisted in "harmonic" numerical ratios defining the analogy between whole and parts. So every particular thing derives from the action of Limit upon the Unlimited, which produces a harmony essentially numerical. In this sense the Pythagorean numbers are the primary reality and things themselves are numbers(38).

The identification of measure and proportion with the essence of things, or with beauty and truth, or with the *Idea* of the Good, is basic to the Platonic conception of the *ideas* and their relation to the sensible world: "... for measure and proportion are everywhere identified with beauty and virtue ... Then if we cannot catch the good with the aid of one *idea*, let us run it down to three - beauty, proportion, truth"(39). We can assume then that measure in the temple is related directly to its essence in the sense of imitation: it imitates beauty and truth. Moreover, for Plato the art of measurement is universal and has to do with all things. The artist has first to see the unity of all things and then go on with the differences, which make distinct classes. The art of measurement consists of two parts: numerical measure (number, length, depth ...) and moral measure (the mean, (...) and the due, and, in short, a mean or standard removed from the extremes)(40).

Aristotle says that Plato distinguishes between "causative numbers" which are intelligible and cause being and generation, and "sensible numbers" which exist in the corporeal world(41). It is obvious that, due to the transcendent character of the *ideas*, "causative numbers" cannot exist as such in the corporeal world; only sensible imitations of them, as imitations of the *ideas* they are identified with. In this sense a multiplicity of sensible things can be produced by the same causative numbers(42).

Plato had conceived of mathematical numbers in a different sense as well; he assumed them to exist intermediately between *ideas* and sensible things(43). Aristotle suggests that this is abstract, although he admits the existence of mathematical numbers as potentially separable from sensible things(44).

Aristotle, dealing with the limited nature of individual things, adopts the Pythagorean concept that mathematical ratios determine goodness and beauty:

> And since goodness is distinct from beauty (for it is always in actions that goodness is present, whereas beauty is also in immovable things), they are in error who assert that the mathematical sciences tell us nothing about beauty or goodness; for they describe and manifest these qualities in the highest degree (...) The main species of beauty are orderly arrangement, proportion, and

definiteness(45).

However, although mathematics in Aristotle is an intrinsic property of beauty, beauty is not identified with the notion of *eidos* as it is in Plato, but related to it through the doctrine of suitability. Substances that are carriers of the same *eidos* can be beautiful or not, according to whether their proportions, qualitatively conceived, are suitable to this *eidos* or not. By *eidos* Aristotle understood conceptual forms rather than arrangement of parts, while by proportion he meant mathematical relations not beautiful by themselves - as the Pythagoreans did - but beautiful because they accord with the *eidos* they referred to. For example, the foot in heroic poetry is the most calm and majestic of all feet, in order to best express the nature of this kind of poetry(46). Moreover, "definiteness" which constitutes one of "the main species of beauty", is interconnected with the properties of perception of the human mind; only objects easily perceptible can please the senses and the mind. Perceptibility is posed as a condition of unity between the spectator and the work of art(47). Nevertheless, it ultimately remains "the limit that derives from the nature of a thing"(48). The optical illusions in the temple, far from deceiving the spectator, express this unity, given the fact that man and the work belong to different *eidé*. In Plato the unity also exists, but only on the level of the *idea* in the form of participation.

Summarizing what Plato and Aristotle held about the relation of numbers or mathematical proportions to the *ideas* and the particulars, we could say that numbers or proportions are by both connected with the essence of things, the *ideas* or *eidé*, and imposed on matter as a principle of separation; they both agree that "causative" numbers do not exist as such in the corporeal world, but only in the form of "sensible" numbers. But while Plato assumes that measure and proportion are absolute and universal, Aristotle asserts that they are absolute within the limits of each *eidos*, and sees human perception as a means of communication between the spectator and the work of art. Nevertheless, as we are going to see next, these two contradictory views appear to have been well combined in practice.

2. 3. 2. 2. AN ANALYTICAL DESCRIPTION OF THE EVOLUTION OF THE CLASSICAL TEMPLE

Although the Classical temple remained fundamentally unchanged from the early sixth century till the hellenistic period(38), it underwent a constant change in the form of its parts and their relations as well as in the construction techniques and materials used. The character of this change can be seen as two-fold: first, a diachronic change, an

evolution of the morphological characteristics of the particular temples through time; and, second, differencies between temples which, although they were built at about the same time, vary in details and relation of parts. Major differences could also occur between temples built in different places, as in the mainland, Ionia or Southern Italy.

The Platonic theory of a perpetual development of the sensible forms towards the *idea* and their generation through imitation, as much as Aristotle's conception of *eidos* as never existing apart from its particulars which are reproduced in a way similar to the reproduction by seeds, both apply in the case of the temple. In an attempt to explore their relation to the essence, the *idea* or *eidos* within their historical context, a descriptive analysis of the evolution and modifications of the formal features of the temple will be given first. This evolution will be approached on three scales: through a comparative description of some temples chosen as representative, through a description of the stages that underlie some of these temples, and through a comparative examination of parts.

The plan of the first temples traced back to the early eighth century as far as the archaeological evidence permits us to know, was of an oblong hall with the entrance on the narrow side, with a row of wooden posts in the axis. The most important feature of the temple, was the row of wooden posts that surrounded it. The first Heraion at Samos seems to be such a case(50)(Pl. I, a). This temple, built early in the seventh century, was replaced by another on the same site(Pl. I, b). The new cella was the same length but a foot wider, and the pteron nearly twice the width of its predecessor. In the new temple, the overall ratio of length to width was about 3.5:1(51).

Temples that have preserved more evidence of their outward appearance and which could be characterized as Doric, belong to seventh century mainland Greece. The temple of Apollo at Thermon is an example(Pl. I, c). It consisted of a long hall with a row of columns on the axis, with a false porch at its rear facade that creates a symmetrical effect with the front facade, and a perimetrical colonade. The columns were probably wooden with a lower diameter about 64cm which can hardly be justified by their structural function(52). They stood on separate stone blocks. The stylobate, the continious platform below the whole building, had not yet developed. The length of the temple was 3.25 times its width. In a later reconstruction, the columns were replaced by stone ones(53). The early columns probably supported wooden beams, while above them ran a painted frieze and a cornice, made of terracotta. The tiled roof was elaborately decorated. As the evidence suggests, the Doric order seems to appear from the beginning in an almost complete form; in no way was it the result of a slow development(54).

The temple of Hera at Olympia built about c. 590 B.C. in old-fashioned

materials(55), was considerably bigger than anything that existed before(Pl. I, d). The general proportions of the plan were still very long compared to the later temples, with a length to width relation about 2.66:1 (56). It consisted of a long hall with two rows of columns along it instead of one, a false rear porch and a wooden surrounding colonade standing on a platform. Reduction of the intercolumnation spacing at the angles, suggests that angle contraction was already in use on mainland Greece from the early sixth century. This also suggests a Doric frieze which is all lost, but probably made of mud brick(57). Progressively in the following years, destroyed wooden columns were replaced by limestone ones, according to the changing proportions of column; as a result, two neighbouring columns could vary in diameter from 1m to 1.28m for an axial span of about 3.56m or 3.26m(58). The different stages in the evolution of the Doric column at the Heraion of Olympia could be considered in a diachronic sense as imitations of the same *idea* or representatives of different *eide*, successive steps in the process towards a final *eidos*. The fact that they, nevertheless, co-operate in the formation of the same temple, suggests a synchronic existence as variations within the same *eidos*. It becomes obvious then, that it is difficult to speak about synchronicity or diachronicity in the temple as a matter of either/or; for the one easily turns into the other and thus manifests the essentially timeless nature of the *eidos* (genus) of the Classical temple within its spatio-temporal milieu.

One of the first temples with a stone colonade around the cella is the temple of Athena Pronea at Delphi, dated to the seventh century(59). The slender proportions of the limestone columns - their total height is 6.5 times their lower diameter - are probably a bequest of their wooden predecessors. Remains of twelve columns that alone have survived, are insufficient to permit a reconstruction of its plan.

The temple of Artemis at Kerkyra, contemporary with the temple of Hera at Olympia, illustrates the final stage of major changes in the evolution of the Doric temple(Pl. I, e). The difference between this and later Doric temples consists almost entirely in variations of the proportions between parts. This temple, much bigger than the Heraion at Olympia and with wider proportions - its length a little more than double its width - was built entirely of stone(60). The pediment and walls have almost totally been destroyed, but what has survived shows the existence of fluted columns carrying Doric capitals of the normal early type with some particularities at the hypotrachelium, an architrave, a frieze of grooved triglyphs and plain metopes, and a projecting cornice with plank-like mutules and pegs. The columns, characteristically of the sixth century form, were much heavier than those of Pronaea, with a relation of height to lower width 4.2:1 (61). The relief sculpture of the west pediment which has survived, belongs to the earliest examples(62). Representing a fiercely glaring gorgon flanked by two panthers and her two children, it frightens off any evil approaching the temple.

In the mid-sixth century, the Ionic temple makes its appearance as a variation to the Doric(Pl. II, A, a). The archaic temple of Artemis at Ephesus with two series of columns around the cella, is among the first Ionic temples. Though not the largest in Ionia, the temple was considerably bigger than anything ever built on the mainland. Its stylobate measured about 51.8mx112m (1:2), and the columns were 1.8m in diameter and almost 17.7m in height (1:10) (63). The front facade of the temple was octastyle, while the rear was enneastyle. On each flank were twenty-one columns with spacing increased towards the corners. As a result, a feeling of weakness at the corners was created, in contrast with the strength of the Doric angle contraction(64). The columns had Ionic capitals and the characteristic Asiatic Ionic base consisting of a large torus elevated on a horizontally fluted disc. Similar to this temple are the phases III and IV of the Heraion at Samos and the temple of Apollo at Didyma.

The Doric temple of Aphaea at Aegina in the late sixth century marks the transition from the Archaic to the Classical era(Pl. I, f). It provides the earliest instances of enlarged corner columns and tilted columns(65). The stylobate had wide proportions, 13.77mx28.82m, 1:2, and the columns were quite slender for Doric, 1:5.2, a characteristic of the Classical era as distinct from the heavy ones of the Archaic period. Fairly well preserved, it was built in the local limestone coated with a thin layer of stucco and richly painted. The pediment sculptures, elaborately carved of Parian marble, represent two combats from the Trojan war as described in the Iliad. A sloping ramp formed the approach to the stylobate(66). This temple shows one of the rare efforts to execute a plan with simple dimensions: its columns are 3 Doric feet in diameter with those on the corners slightly thicker; the axial spacing of the columns is 8 Doric feet on the fronts and slightly less on the flanks, with a stylobate width 42.5 Doric feet; the height of the columns is twice their axial spacing(67). Aphaea has two earlier phases; the first, underlying the temple, consists of a hairpin plan dated in the eighth century; the second, with large columns and wide spreading capitals, fragments of which have survived, belongs to the early sixth century(68).

The Heraeum at Olympia was the place of worship of Zeus and Hera together until the c. 460 or 456 B.C., when a new temple for Zeus alone was completed(Pl. I, g). Hexastyle with thirteen flank columns and a stylobate size 27.7mx62.28m, 1:2.25, the temple of Zeus was one of the largest temples erected in the mainland. It was built in the shelly limestone of the district, covered with a thin layer of white stucco and painted; the pediment sculptures, the metopes of the inner porches, and the simas and roof tiles were of Parian marble, while the acroteria were of bronze. The access to the stylobate was provided as in Aphaea by a sloping ramp. The aim towards the simple proportions shown in Aphaea, is clearer with this temple. The name of its architect has survived, it was Libon of

Helis. He keeps the Archaic variation between front and flank only in the column diameters, and makes the angle columns not especially enlarged. But the axial spacing is uniform on all sides and equivalent to 16 Doric feet. The height of the columns, 32 Doric feet, was twice the axial spacing, and the abacus width a quarter of the column height. The triglyphs were spaced 8 Doric feet on centres, the mutules 4 Doric feet, and the tiles 2 Doric feet(69). The height of the columns was approximately 4.5 times their lower diameter. Mythological themes were elaborately represented on the metopes and the pediment.

The Parthenon, dedicated to Athena the patron goddess of Athens, was built in c. 447-438 B.C. and became the symbol of the golden age of the city(Pl. I, h). The substructure of an incomplete temple of Athena burnt down by the Persians in c. 480 B.C., provided part of the 30.9mx69.5m, 1:2.25, stylobate that accommodated the Parthenon. The architects of the new temple were Ictinus and Callicrates, and the sculptor, Pheidias. Marble column-drums from the burnt temple were re-used for the columns of the peristyle, probably affecting the whole size of the temple(70). The columns were nearly 5.5 times their lower diameter in height, with the angle ones a little larger. They all diminish at the top of the shaft to a little more than three quarters the lower diameter(71). The ratio of intercolumnation to diameter was 9:4. There were no differentiations between the front and the flank columns, except of the corner ones which were enlarged. The same ratio was applied to the width and length of the building. The overall height of the building equalled 3.2 intercolumnations and was in the same ratio of 4:9 to its width(72).

The whole temple was of Pentelic marble, distinguished by extremely delicate workmanship and liveliness of surface. The interior was divided into two chambers. The eastern had Doric colonnades on three sides, in two tiers separated by an architrave and supporting the roof timbers. The chryselephantine statue of Athena fully armed and with a winged Victory in her right hand, one of Peidias' best works, stood in the axis, near the western end. This chamber was known as *Hecatompedon*, named after the Archaic temple that had stood upon the site. The western chamber was the *Parthenon*, or Virgin's chamber, from which the temple took its name. With the roof being supported by four Ionic columns, the use of more than one order at the same temple was introduced. The slender proportions of the whole building suggests the influence of an Ionic element upon this essentially Doric building(73). The metopes, the frieze of the cella and the pediments are extremely elaborate works of Pheidias and his school representing mythological themes related to Athena.

A temple at Bassae in Arcadia, dedicated to Apollo Epicurius, was also made by Ictinus, almost in parallel with the Parthenon (c. 450-425 B.C.) (74)(PL. I, f). With a stylobate measuring 14.48mx38.24m, or 1:2 2/3, the temple was quite long compared to others of its age. The height of the columns was 2 2/3 times their width, similar to those of

the Parthenon, but that was the only common characteristic of two almost contemporary temples conceived by the same architect. The most remarkable feature of this temple is the use of all three Greek orders, the Doric outside and the Ionic and Corinthian inside. The collaboration of different orders in the same temple, an innovation probably introduced by Ictinus, introduced a harmonic polyphony that very easily turned into an anxious plurality in the following Hellenistic age. Chosen here to represent the end of the Classical period, the temple of Apollo at Bassae is very similar in size and relation of parts and materials used to the temple of Aphaea at Aegina, that was built at the beginning of the Classical period. A line closed within itself, a completed circle, self-sufficient, and unique in its own historicity.

Our approach to the evolution of the Classical temple will be further elucidated by a closer study of the evolution of some of its elements, particularly the Doric capital and the Ionic base.

The Doric capital, and more precisely the proportions of its constituent parts and the curved profile of its echinus, are characterized by a more or less steady and continuous evolution(Ill. 2-3). The early capitals, which date roughly from the late seventh and early sixth centuries, spread widely with a round cushion-like echinus. The late ones are cone-like and spread considerably less. The relation in height between abacus and echinus increases constantly in favour of the abacus(75). Generally speaking, no two Doric temples have precisely similar capitals, and, in the Archaic period at least, not even the same temple; precise uniformity seems of not overriding importance(Ills 2-4,5). Thus it is not easy to distinguish between accidental variations and intentional changes. Major changes characterize different places at different times and they are not adopted universally or immediately. We can say however that the form of the capital, on its way from the Archaic through the Classical age, becomes progressively more geometrical and simultaneously less important as an individual element of the temple.

The Ionic base is probably the most striking example of a multiplicity of variant forms, more or less restricted by place and time(Ills 2-7,8). In contrast to the Doric column that stood directly on the stylobate, Ionic columns stood on elaborately profiled bases, since the first instances of their appearance in Asia Minor in the early sixth century(76).

The Ionic base usually consisted of a convex element, the torus, standing upon a disc which tended to become increasingly concave and more deeply worked(Ills 2-8.1-8). This type of base with the addition of a plinth underneath, used in the great Ionian Archaic temples, remained the established form in Asia Minor until the Roman age. In fifth century

Athens, several variants of the Ionic base were developed. The addition of a second convex element below the strongly concave disc, seems to have been a widely adopted innovation(Ills 2-8.14,15,17-22); a variation to this, introduced by Ictinus at the temple of Apollo at Bassae, had a further addition of a second concave element below the convex one(Ills 2-8.16,23,24). In parallel to the evolution of the Doric capital that became increasingly less pronounced and more austere, confined within a narrow spectrum of variations, the Ionic base became more elaborate and complex, characterized by major differences according to place and time.

With the possible exception of the Ionic base, though the proportions of the temple were transformed in the course of time, the form of its parts remained basically the same. As it has become clear from our description of its evolution, measure and proportion in the Classical temple were not something strictly fixed and unchangeable. In fact, no two temples are the same, and this certainly cannot be justified by lack of technical precision. The difference in proportions is even more difficult to justify in this way. A combination of both Plato's evolution towards the *idea* as well as Aristotle's variations within an *eidos*, seems to be the only way to approach the changes in the form of the Classical temple in its own terms, as they emerge through this particular investigation.

2. 3. 2. 3. THE EVOLUTION OF THE CLASSICAL TEMPLE AS A MANIFESTATION OF ITS RELATION TO THE *IDEA* OR *EIDOS*

In the course of time the materials of the temple changed from wood and clay which lack durability but are easily worked, to limestone and marble and finally entirely to marble in order to make the temple live for ever. The demand for technical precision followed this evolution. From the first stone temples in the early fifth century until the end of the Classical period in the late fourth century, we can say generally that as the size of the temple increased, its proportions become lighter and more uniform. Variations between temples always exist, with some extreme cases, such as the temple of Zeus at Akragas(Pls I, III; II, C, c). But the change in the mathematical relations of its form, seems to be the most characteristic factor in the evolution of the temple.

In contrast to the eternal and universal nature of the essence, particular temples are limited in space and time. The finiteness of their nature as a principle of existence in the corporeal world is due to mathematical relations. As we have discussed in 2. 3. 2. 1. these relations are related by Greek philosophy, and Plato and Aristotle in particular, to the essence of things. Thus, measure and proportion in the Classical temple is a manifestation

of eternal beauty and truth as they are conceived within its spatio-temporal context. On this ground, variations are totally justified: either because mathematical relations in the temple cannot be but imitations of the "causative numbers" that participate in the *idea* (Plato), or because the potentiality for variations is inherent in the *eidos* temple as such (Aristotle). Thus, for any actual temple, built by and for a society whose conditions are necessarily contingent, variations in the form of the temple constitute the only way its essence as an eternal and immutable entity can manifest itself. In the same spirit, the evolution of the temple follows a perpetual process, either towards a closer approach to the *idea* and in this sense to a constantly higher level, or moved by the Prime Mover without any particular grade-defined direction; or a counter-process of decadence as it is argued in section 2. 3. 5. 2. of this chapter.

2. 3. 3. THE COMING INTO BEING OF THE CLASSICAL TEMPLE IN RELATION TO THE ARCHITECT

2. 3. 3. 1. A THEORETICAL DISCUSSION OF THE ROLE OF THE ARTIST IN THE PRODUCTION OF THE WORK OF ART IN THE CLASSICAL ERA

In order to investigate the coming into being of the work of art in Classical Greece, we should try to give the meaning of the term "art", *techne*, first. *Techne* was generally used to signify skilled production, and was not confined to the fine arts(77). Plato in the Ion, speaking about poetry and art in general, says that it is based on *techne* and inspiration(78); *techne* signifies knowledge of the rules of art and is learnable, while inspiration is the outcome of divine possession and moving and the cause of invention. Inspiration, viewed from the standpoint of "rational reasonableness"(79), is considered by Plato as something outside the artist, a kind of divine madness: "... there is no invention in him until he has been inspired and is out of his senses, and the mind is no longer in him ..."(80). Composition, though, is based upon inspiration; poetic ecstasy was regarded by Plato as man's highest activity. *Techne* consists of the cognitive function through which the artist controls the outcome of his inspiration.

Plato's conception of art in the sense of *mimesis* (imitation) is similar to the above as far as the role of the artist is concerned: the *ideas* of things pre-exist in the world of *ideas*, and the artist merely imitates them(81). Artistic creation then includes two planes: one metaphysical, originating and existing beyond the artist which is the essential one in the

production of a work of art, and a cognitive one, dealing with the manifestation of the inspiration or of the *idea* in the sensible world. In ancient Greece, innovations in art could only be introduced after their approval by a joint committee of artists and law-lords, as stages closer to the ideal(82). Invention has the sense of "recollection" of a reality which already exists in the eternal world of transcendent Forms(83). Thus the *idea* represents tradition, and for the artist invention and innovation are the means to the ends of this tradition, which are, of course, its origin.

We could say that in general this two-fold view of artistic creation was followed by Aristotle, but on a scale closer to practice: he removed the metaphysical plane within the soul of the artist, and he was more interested than Plato in the reasoning stage of creation. According to his usual habit he defined art, *techne*, precisely, and more than that, extended to art a definition he initially applied to architecture:

> Now since architecture is an art and is essentially a reasoned state of capacity to make, and there is neither any art that is not such a state nor any such state that is not an art, art is identical with a state of capacity to make, involving a true course of reasoning. All art is concerned with coming into being, i.e. with contriving and considering how something may come into being which is capable of either being or not being, and whose origin is in the maker and not in the thing made; for art is concerned neither with things that are, or come into being, by necessity, nor with things that do so in accordance with nature ...(84).

Thus *techne* is a state of capacity to make which is conscious, reasoned and based on knowledge. It follows from this definition that any capacity to make based solely on instinct, experience or practice, is not art, since it lacks conscious mastering of rules, means and ends. This definition of art was consonant with the Greek tradition and survived for centuries(85).

The role of the artist, the maker, as it comes out of this definition, consists of two successive steps: first, the artist is the carrier of the origin, and second, he is the producer of the work through a conscious and reasoned activity. As far as "(art's) origin is in the maker", or, as stated elsewhere in the Metaphysics, "from art proceed the things whose *eidos* is in the soul"(86), and *eidos* - as we have discussed earlier in this chapter- means conceptual form and thus cannot exist in the corporeal world as such, it becomes obvious that the artist in no sense imitates a pre-existing sensible thing. The task of the artist consists in the conception "of the result to be produced before its realization in the material"(87), of the procedure towards the corporeal manifestation of the *eidos*. This however indicates a primarily creative stage testified by reason in order to express the true

and the essential properly, in accord with the laws inherent in its *eidos* (88). In this sense, "A house (is generated) from a house, inasmuch as it is generated by mind ..."(89). Products of art that belong to the same *eidos* are related to each other through their *eidos* and the contriving of their coming into being by human reason; and as far as this kind of reproduction bears resemblance to the one by seeds, the individual character of each product is ensured. Certainly this has nothing to do with mere repetition of the same form, as in the case of industrial reproduction, for example.

No emphasis is given by Aristotle to the activity of the artist as such, but only to the extent that activity serves as the medium through which the work comes into being. Generally in Classical times the role of the artist is overshadowed by the outcome of his activity. From the surviving works of philosophy and literature, it is clear that the product of art is by no means a self-determination of the artist's subjectivity in the Modern sense. The Classical artist is actively related to the world, and therefore even his personal thoughts and emotions have nothing purely and exclusively subjective in them(90). The essence of the work is a universal entity. So the product of art comes out as an objective creation, directly related to universal laws as much as to particular socio-cultural conditions.

2. 3. 3. 2. TEMPLE AND ARCHITECT

We saw earlier (2. 3. 2. 2.) that the ways in which one temple differed from others of the same period and area were slight variations in the number and size of the columns and their spacing, the proportions of the upper part and the mouldings. This fact indicates that the same *idea* or *eidos* underlies their conception. The architect either imitates the *idea* or brings into being the *eidos* that already exists in his mind. In either case the task of the architect mainly consists of the manifestation in the corporeal world of one and the same universal and unchangeable entity. He first "knows" what the temple is, and then he approaches it through *techne*, through the cognitive procedure that leads to the conception "of the result to be produced before its realization in the material". Such a perfect cognitive control upon the result seems to have reached its climax with the Parthenon. Ictinus and Callicrates mastered the rules of proportion and the construction and material techniques as they had been transmitted to their age through the process of evolution of the temple (as described in part 2. 3. 2. 2). Furthermore, the pursuit of knowledge that characterized the Classical age, was probably required to include a reasoned criticism of the way the essence of the temple as a metaphysical entity was manifested through the marble. The innovation of a masterly combination of Doric strength and Ionic elegance on the Parthenon, for instance, would probably have been justified by the architects themselves on such grounds.

They would have said that that particular combination was better suited to the goddess Athena, for instance.

Although it is known that the Greek architects used to write detailed explanations of their conception of the final result and its constructional details, none of those treatises has survived to the present day and we know nothing of their content(91). These treatises consisted not only of practical information and technical experience but of general theoretical discussions about "laws of symmetry" and "canons in art"(92).

Among architects who wrote about their art in the fifth century, we know of Silenus, the author of a book on the proportions of Doric structures, Ictinus, the architect of the Parthenon and some others, mentioned by Vitruvius(93). Vitruvius makes a reference to the work of Hellenistic architects such as Pytheos, who was the architect of the temple of Athena at Priene and the Mausoleion at Halikarnassos in the mid-fourth century. Pytheos, in addition to explaining the design of his masterpieces, expressed the opinion that "the Doric order ought not to be used for temples, because faults and incongruities were caused by the laws of its symmetry"(94). Nevertheless, Pytheos could not be considered as a representative of the Classical notion of Doric; for he belonged to an epoch initiating the Hellenistic period, by which time Doric was in decline and "regularity" (as we are going to discuss later in this chapter) had become a basic principle of conception of the temple(95).

The most important written documents that have survived seem to have been technical descriptions of buildings and the way of constructing them, or accounts of the work undertaken by each contractor(96); both are called *syngraphai*, and there is no mention of drawings or plans in them. In *syngraphai*, the architectural elements are referred to by their names and described in terms of their general proportions and material. If a special detail was required, the architect would supply a *paradeigma* or an *anagrapheus*. *Paradeigma* was a specimen used for parts like capitals or triglyphs; it was usually made of easily workable materials like wood or clay and probably in the actual size(97). *Anagrapheus*, as Coulton argues, seems to have been a template used for specifying complex mouldings on blocks(98). It seems that the use of *paradeigma* and *anagrapheus* helped the architect in experimenting before deciding what final form he would choose.

A recent discovery at the Hellenistic temple of Apollo at Didyma, c. 334 B.C. (99), shows that at that period at least, construction plans of individual parts of the building, such as a column basis or even whole gables, were incised into unfinished wall surfaces of the temple in their actual size. Full-size plans of the stone layers that make up the foundation of the temple have also been found, each inscribed in the surface of the preceeding layer. Corrections on the plans reveal that apart from guiding the stonemasons, they have

been used as rough plans for the architect as well.

It seems however that techniques of experimentation were restricted to the treatment of the details of some component parts. For, as far as the available evidence suggests, scaled plans or models were not used by architects. Possibly they found them misleading, since, us we have discussed in 2. 3. 2. 2., they used different proportions in buildings of different sizes, and the final result was also conditioned by human perception(Pl. I, II, III).

The existing temples as well as the treatises written by the architects on the most important temples of their time, probably helped at the stage of conception of a new temple by providing a means of prediction of its final form. An architect could improve upon that already existing by using his imagination, by changing some proportions for instance, and imagining the result that would be produced. The way a change of a part would inevitably influence the form of the whole, particularly in terms of proportion, was more or less predictable on the basis built up by tradition. A change in the width of a column for example would be interrelated with a chain of alterations in the intercolumnations, the size of the stylobate, the articulation of the upper parts. Even at the stage of the foundation, the proportions of the parts had to have been decided. It seems that the experience accumulated by tradition had in principle replaced any need for architectural plans and models in the process of conception of the Classical temple.

The fact that, as we have already discussed, there was a continuity in the development of the form of the temple, shows that the Classical architect was indeed an integral part of his society, which was represented by his work. The equal front and flank spacings for instance, that appear in the evolution of the temple in the early fifth century (e.g. in the temple of Zeus at Olympia), are nothing but an expression of the democratic ideal within the city-state, while the differentiation of the corner columns shows the particularity of each according to its position. On the other hand, the variations between temples that indicate the personal character of each, are interrelated with the particularity of the individual architect within his socio-cultural context. The names of the architects were known, and many of them have survived to us. The particularity of each temple was potentially in the essence of the temple. Plato's concept of innovation in the ascent towards the *idea* seems consonant with the first case, while Aristotle's reproduction through seeds with the second. Combining both, each temple constitutes a unique entity, an individual within its *eidos*, its existence interwoven with the social evolution of Classical antiquity towards the mastering of reason through dialectic. But this will be discussed in the section on the political meaning of the temple.

2. 3. 4. THE SOCIAL DIMENSION OF THE CLASSICAL TEMPLE

2. 3. 4. 1. THE SOCIAL DIMENSION OF ART IN THE CLASSICAL ERA: A THEORETICAL DISCUSSION

In both Plato and Aristotle, the *idea* or *eidos* despite its metaphysical nature, is well anchored in the realm of social reality. The moral benefits of the citizens are a proper end of art. But while Plato conceived of the social and the ideal as distinct fields and identified morality with the *idea* of Good, Aristotle took good as socially determined and independent of metaphysics(100).

In Plato's philosophical thinking, dealing with art as an existence *per se* has no meaning. For him, its purpose and criteria of value are determined by universal, absolute laws of Truth and Morality(101). Truth is expressed in the work as a proper arrangement of parts, an internal order and good structure, in accordance with the eternal mathematical laws that govern the universe. Morality is manifested through the capacity of art to mold the characters of the citizens towards the realization of the ideal state(102).

The factual grasp of the ideal in Plato's ideal state, always remains human(103); in the sense that there is always a gap between what the magistrates who fix the laws envisage and what is humanly achieved. As a result, the constitution of the state "improves more and more" towards the ideal(104). The concept of progress indicated here has not the sense of something gradually becoming different from itself, but of it becoming more and more completely its own self(105). This process - infinite in practice - of the political or social towards the *idea* of the Good, defines the social basis of the latter. In art imitation as the image of Good actually depends upon the moral ends of the *polis;* works in discord to those ends are "images of moral deformity" for the citizens. Building in particular is of immense importance to shaping the characters of the citizens because it produces works, such as walls or sanctuaries which are of a vital function to the state; public buildings are indeed a principal expression of the political identity of the city(106).

Aristotle's concept of art departs from the social reality and not from prefixed ideal moral or educational ends. He argues that art must fulfil moral and educational demands, particularly in the Politics(107), where he follows the traditional Greek view that morality and education constitute the subject matter of political art(108).

First and foremost, however, Aristotle deals throughout his work with art's value *per se* testified through the aesthetic pleasure *(edoné)* it gives to the spectator; moral or cognitive truth are relative criteria in art while *edoné* is an absolute one(109). Referring to the optical distortions used in painting, for instance, he says that "if men such as Zeuxis depicted the impossible, the answer is that it is better they should be like that, as the artist

ought to improve on his model"(110). The autonomy of this aesthetic criterion is, nevertheless, far away from the much later developed dogma of "art for art's sake". For, on the one hand, dealing with the spectator, Aristotle presupposes that he is a moral and logical person within his specific political milieu and requires art to follow this logic and morality; any diversion from the moral or logical criteria of the spectator damages his aesthetic pleasure unless it favours a higher aesthetic aim(111). And, on the other hand, the highest type of aesthetic pleasure which is related to the *eidos* or essence as a criterion and end, derives from the *mimesis* of the *katholou*, the imitation of the universal and objective that constitutes the essence and the meaning of existence of the work of art within its particular culture(112).

In tragedy, for instance, Aristotle finds this essential pleasure not in external formal characteristics such as rhythm, verse or music, but in the myth, "in the composition of actions"(113). In this sense a poem can still remain a poem even without those features, but Herodotus' work written in verse does not cease to be a species of history(114). The feeling of rhythm and harmony is inherent in man and for this reason its recognition in the sensible world creates pleasure(115); this kind of aesthetic pleasure nevertheless is not referred to the *eidos*, that is to say it is not a principle or end of art(116).

The essential form of aesthetic pleasure acquired through *mimesis* is due, according to Aristotle, to the human instinct for knowledge. Through *manthanein* (understanding intuitive or cognitive), re-creation (mimesis) of the essence of the work of art is achieved by the spectator and this is the cause of deep aesthetic pleasure to him(117).

The conception by Aristotle of the aesthetic phenomenon as "acting of the mind", an operation identified in the potential recreation of the essence of the work by the spectator, defines the autonomy of art in this sense. It seems nevertheless, that Aristotle would suggest that in order that this abstract acting can exist at all or - in other words - have a meaning, it must operate upon a particular work within the particular political milieu of the spectator.

As it emerges from the philosophical speculation of the Classical era, the temple has to obey the universal and absolute laws of truth and morality as they are expressed by the totality of the cultural dimensions of the city-state at a given time. As an integral component of this totality, it will follow its changes towards a closer approach to the *idea*. Furthermore, the aesthetic pleasure of the spectator stressed by Aristotle, is ultimately interwoven with the particular socio-cultural milieu. The "spectator", or pilgrim, has to re-create the essence of the temple in order that aesthetic pleasure be achieved. Formal characteristics, such as measure and proportion, are incapable of creating aesthetic pleasure by themselves. Applying Aristotle's example - which refers to music - to architecture, we could say that a Classical temple can still remain a Classical temple even without its formal

features, while an expression of a different culture dressed in the form of the Classical temple never ceases to belong to its own culture; in this way, far from creating aesthetic pleasure, it manifests a fanciful contradiction between its form and its essence. Given this unity of the aesthetic with the religious and political dimensions within the *polis*, the approach to the meaning of the temple will follow.

2. 3. 4. 2. THE MEANING OF THE CLASSICAL TEMPLE WITHIN ITS SOCIO-CULTURAL MILIEU

A. THE RELIGIOUS DIMENSION OF THE CLASSICAL TEMPLE AS A RELATION TO ITS PAST

a. INTRODUCTION

The Classical temple was primarily a religious symbol. The time of its appearance about the eighth century B.C., coincided with major cultural and political changes in Greece. In religion, Homer and Hesiod, presenting a rational inquiry into the origin and nature of the world on the basis of myth as it had been bequeathed by tradition, introduced the reorganization of the universe into an ordered whole. The "Homeric" religion remained the dominant Greek religion until 393 A.D.(118). The religious expressions of the Bronze age in great part survived or were revived through this organization(119).

In the nineteenth century, German Romanticism was inclined to regard Greek religion as dipolar, consisting of two extreme aspects. Winckelmann and Goethe, on the one hand, tended to see the Olympians as products of the artistic imagination of Homer rather than as a vital religion; as a reaction on the other hand, Creuzer attempted to locate the real religion of the Greeks in the realm of mysticism and ecstatic rituals, projecting characteristics of late antiquity into the Classical and pre-Classical period(120). But after the rediscovery of the ancient Near Eastern literature, with astonishing parallels to the Homeric world, the Mycenaean background of both, the Olympian as much as the mysteries, started to unveil itself(121). The continuity and evolution of the Bronze age tradition is of great importance to this enquiry, as it forms the historical background of the creation of the Classical temple.

About 1200 B.C., the Minoan/Mycenean civilization collapsed and the last Greek tribe, the Dorians, migrated to the Helladic peninsula. That was followed by more than 400 "Dark" years of emigrations and decline. According to archaeological evidence, all large-scale stone building ceased at that period, as did the pictorial and plastic arts. The dark age

of Greece constituted the transitional period from Prehistoric to Historical Greece(122).

In the ninth and eighth centuries B.C., a sudden growth of the mainland sanctuaries - from twelve to over seventy - indicates a dynamic expansion of religious elements which were firmly rooted in a confusing variety of Prehistoric traditions nourished in the Greek peninsula(123). Minoan/Mycenaean civilization is the most important of those traditions in so far as it is from this that the Historical Greeks inherited their language, important gods, cults and festivals. Fully developed elements such as rebirth, initiation and mystery rites, epiphanies, cave cults and periodical return of the gods, were taken over by the Greeks. Minoan/Mycenaean civilization appeared as a uniform religious system. Elements of the preceding Neolithic civilization, such as the stone cult connected with Hermes and ithyphallic representations, were rejected by Minoan/Mycenaean culture. After the collapse of the Minoan/Mycenaean civilization nevertheless, these elements appear again(124), probably released under a simultaneous influence from the East(125).

Investigating the Mycenaean origin of Greek mythology, Nilsson drew attention to the fact that the centres of the great myth-cycles coincide with the Mycenaean centres, and that in every case the Mycenaean towns stand in the areas which were settled in the Neolithic and Early Bronze age(126). W. Burkert, arguing that Nilsson does not go far enough, stresses that a number of sanctuaries, which are far removed from the later Greek towns, occupy the site of a Neolithic settlement(127). As C. Rolley observes however, the archaeological evidence suggests that there is always a stratigraphical gap between Early Greek (Geometric) habitation areas and sanctuaries, and the underlying Mycenaean ones(128).

In the realm of religious and artistic expression there appears to be no break between Early Greek cult and the Mycenaean past; nevertheless, there is discontinuity of cult buildings(129). It seems that a totally new architectural expression of the cult was fermented, as part of a changing attitude towards nature and the whole universe(130).

The experience of the sacred during the Bronze age belonged to a society where the notion of the individual as a unit with personal rights and obligations did not exist. Instead, the actions of man were almost completely dictated by the will of his family, and - beyond all - by his tribe, which represented the will of the divine on earth(131). Impersonal holism seems to prevail in the modalities of worship of the divine in that era, based on the sacredness of nature(132). Despite Homer's affirmation that the twelve Olympian gods existed in Mycenaean times, the existing evidence reinforces the probability of the belief in nature daemons and in a smaller number of gods(133). The existence of individual daemons of nature does not indicate in any case a fragmental conception of life. The multiple and

diverse distinct forms were conceived as having a unity of essence that was fundamental and eternal.

From the eighth century onwards however, with social change interwoven with the emergence of the individual with the dominant characteristics of personal will and intellect (as was extensively discussed in Chapter One), the Bronze age conception of the divine appeared to be fragmented. In order to remain a whole, it had to be reorganized according to the rules of human reason. Homer and Hesiod created order amidst the apparent confusion(134).

The existense of a tradition of oral poetry involving generations of professional bards can be shown convincingly from the style of the Homeric poems(135). Following the path of this tradition and without becoming separated from the beliefs of their society, Homer and Hesiod created "an individual version of a general norm. But as soon as that variant (...) was elevated to the position of a standard representation, it became itself henceforward a determinant of the popular conception"(136). Through the poems of Homer and Hesiod, the indeterminate daemons become particular personal gods; and probably this is the meaning of the famous passage in which Herodotus tells us that Homer and Hesiod "made the generations of the gods for the Greeks and gave them their names and distinguished their offices and skills and fixed their physical appearance"(137). Certainly, he does not mean that they made the gods from nothing. Athena, for instance, had been - as we now have reason to believe - a Minoan house-goddess(138).

Neolithic and Mycenaean cults and rituals were maintained mainly in the "unofficial" Greek religion, that is to say in the mysteries of Eleusis and Samothrace, and in the Dionysiac, Orphic and Pythagorean sects(139). The official religion of the Olympian gods as organized by Homer and Hesiod, devoid of mystery and of the arbitrary forces of the irrational, constituted a well-ordered, half spiritual, half human world. The meaning of the temple in relation to its Mycenaean past as much as its Homeric present will be discussed next.

b. SEARCHING FOR A MYCENAEAN/OLYMPIAN PROTOTYPE OF THE CLASSICAL TEMPLE

The Classical temple has long been considered as the architectural descendant of the megaron of the Mycenaean palaces: the rectangular room with the entrance on the narrow side, and the porch with two columns(Ills 2-9,10).

This view has been supported by archaeological interpretations that insisted that at least in the case of Tiryns and Athens, it did indeed replace the Mycenaean megaron at the very same site. According to recent findings however, no trace of the Mycenaean palace remains on the Acropolis, while at Tiryns between twelfth century rebuilding and the eighth century temple, a large gap seems finally to emerge(140).

Descendants in form and perhaps also in function, of the Mycenaean megaron are probably the so-called hearth-altar temples: oblong buildings with the entrance on the narrow side and a central hearth, dated to the eighth century. Sacrificial banquets probably took place in these buildings. The most important examples are at Perachora near Corinth and at Dreros on Crete. The elongated apsidal buildings in Thermos were probably also houses for sacrificial banquets. When, in the eighth century, a building of this kind was surrounded by a row of wooden columns, one of the earliest columned temples arose(141). As the hearth-altar temples - rather short and wide like the Mycenaean megara - differ quite remarkably in proportion from the undisputable early temples (e.g. those at Eretria and Thermon, which are extremely long and narrow), a doubt has been expressed by some scholars as to whether these sacred banqueting buildings could be considered as predecessors in form of the Classical temple at all(142).

Generally, although the cella of the Greek temple is very close in form to the Mycenaean megaron, there is no clear archaeological evidence that the one really evolves in some way from the other.

Since archaeology appears so far to have proved unable to provide us with an answer about the connection of the Classical temple to the Mycenean megaron, an enquiry into the Homeric poems follows next, in an attempt to explore the formal relation between the Mycenaean megaron and the Greek temple, on the basis of religious meaning.

Nilsson, who investigated the origins of the Greek myths and religion in the Minoan-Mycenaean world, in a classic Sather lecture entitled "Olympus", explores the nature of the kingdom of the gods as Homer sang it, and its possible model in the real kingdoms of the Mycenaean age. He concludes that the monarchical institution of the State of the Gods could not be organized except in accordance with the political conditions of the Mycenaean age, because the social and political institutions of later Greece deviated considerably from this pattern. The full monarchical power of Zeus, can be ascribed only to the mighty kings of the Mycenaean age(143). According to the Homeric poems, this monarchical power was transmitted to the Mycenaean kings by Zeus. Zeus gave to the early kings "the sceptre and themis"(144), as the epitome of their administrative and juridical supremacy(145).

Originally only Zeus, as a weather-god, dwelt on the peak of the highest Greek mountain, Olympus, which, as it was always clouded, was identified with the heavens. Poseidon dwelt in the sea, Artemis in the dark forests, Athena on the hills, and so on. After their subordination to Zeus, however, they acquired their dwellings on Olympus, establishing the City of the Gods. Their palaces, as referred to by Homer, can be assumed to be similar to the Mycenaean ones(146). The monarchical institution of the state of the Gods according to the Mycenaean kingdoms reinforce this probability.

It is generally accepted that the Homeric poems most probably originated in Mycenaean times and belong to the eighth century B.C.; and that through them, the eighth century Greeks participated in their heroic Mycenaean past. Though their political organization was different, the Historical Greeks adopted the Olympian gods, with their organization as described in the Homeric poems, throughout antiquity. It seems reasonable to us that, as far as their temples were the palaces of the gods on earth, they should use the form of the mythical palaces on Olympus, as a prototype; and, since the Olympian palaces (as conceived by the eighth century Greeks) were similar to the Mycenaean ones, it is most likely that the first Greek temples imitate the Mycenaean megaron.

If this is so, the Classical temple primarily symbolized for the Greeks their mighty roots, and their close relation to the Mycenaean world where men could become heros and semi-gods. Although in Archaic Greece man was not an actual participant of the mythical reality of things any more, the fact that the old force of mythical thought offered stable ground for the investigation of the world and social order, made the need for a more tangible expression of the values of the past vital. The importance attributed to the Homeric poems on the one hand, and the building of the temple on the other, constitute the two basic aspects of the connection of the Archaic Greeks with their past. Classical culture was anchored on those representations. From the end of the Archaic age onwards, the temple became the symbol of the continuous presence of the past as an indispensable source of faith in the future. In the fifth century, progress, not as an arbitrary gift of the gods, but dependent on man's own efforts, conceived as a continuation of the tradition rather than as its opposition(147), had little effect on the form of the temple.

Jaeger stressing the continuity of the Greek philosophical thought that originated in Homer and Hesiod, writes: "logic invaded mythology quite early and began to transform it. There is no discontinuity between Ionian natural philosophy and the Homeric epics. The history of Greek thought is an organic unity, closed and complete"(148). The coherency in the evolution of the temple since its appearance in the Homeric age manifests - as we will discuss later - this unity between the religious and the political aspects of Classical Greek society. The cooperation of both gave birth to the Classical temple. The temple, more than

being a monument to the past alone, was the living and eternal symbol of the future as well, that accompanied every present until the end of the Classical era.

The interior of the Classical temple served as an ark of the tradition rather than as a place actually used for the cult(149). It housed the statue of the god or goddess of the temple it belonged to, as well as votive gifts and offerings. Thus it recreated the place where the divine was virtually present. The altar, in front of which communication with the gods took place, stood outside the temple, on its east side. There, with their backs protected by the temple, which manifested the quintessence of a glorious past, the Greeks venerated their gods, facing out onto the open world with confidence and faith in the future.

c. PREHISTORIC SYMBOLS AND RITUALS AS FORMATIVE FACTORS OF THE CLASSICAL TEMPLE

In this perspective of the continuity of the Neolithic and Bronze age tradition transmitted down to the Classical times, we shall try to approach the Classical temple as a carrier of symbolic meaning bequeathed by symbols and rituals of the early Greek cult. The tree and stone cult that played a principal role in the early Greek experience of the sacred, and remained throughout antiquity the main forms of expression of the popular, unofficial Greek religion as no other form of the Pre-Homeric religion did, will be investigated next in the formation of the temple. The Homeric and Hesiodic poems will be seen here as the filter through which the Prehistoric cults, transformed into more or less abstract entities, can contribute to an investigation about the meaning of the Classical temple.

i. The Religious Experience of Homeric Man

In contrast to the Prehistoric modalities of veneration of the sacred, religious experience tends into abstraction in the Homeric and Hesiodic world: an abstraction that is conceived not as a quantification of qualitative phenomena, but as the unchangeable, permanent being that underlies all events in nature and human life(150)(Ill. 2-11).

Dodds, investigating the religious experience in the Homeric poems through a psychoanalytic perspective, maintains that Homeric man has no unified perception of what we call "psyche" or "personality"; the religious idea of psychic intervention, he says, is opened wide by the notions of *até* - a temporal clouding of the normal consciousness, ascribed to an external "daemonic" agency - and *thymos* - Homeric man's organ of feeling, treated as non-self(151). The distinction is clearly articulated, that everything beyond

reason is external to man. For the religious attitude of Homeric man in more general, we can say however that it tends to abstractions. As Erwin Rohde wrote, "Homer has little interest in premonitions and ecstatic states, and no inclination in that direction whatever (...) the psyche is transformed into an abstract "concept of life"(152).

Hesiod goes a step further in this direction. He claims from the beginning that - unlike Homer - that he deals with the truth, and asks the Muses to reveal to him "what was existing in the beginning"(153). The logical coherency with which he describes the divine genera according to a holistic model - even if not perfectly developed - poses the foundations of the philosophical way of thinking. Religion, still an aspect of myth, starts to be theology.

It becomes obvious, then, that in the poems of Homer and Hesiod, man tends to reject his role as an actual participant in the primary unity of things. In the Theogony man is not included in the logically organized totality of the universe; nor his close environment of animals, plants, stones. In this sense only everything "objective", beyond man, participates in the Hesiodic Whole; man is just "a close and willing observer"(154), an individual who perceives reality through its appearance and believes that appearance is the outward manifestation of the essence of things. In the subsequent centuries, man tried to regain the totality by making himself an "objective" thing. But while logic is objective in itself, "to objectify" a feeling rather means to rationalize it, to make it abstract.

i. The Meaning of the Tree-Cult to the Classical Temple

Large imposing trees, almost always enclosed by a wall in order to set them apart as sacred, frequently appear in cult scenes depicted on the gold rings of the Minoan-Mycenaean era. Ecstatic or orgic dances connected with the presence of the sacred trees, constitute the main themes of these iconographies(Ill. 2-12). Nilsson, describing them, concludes:

> Thus we have a real tree cult, boughs being not only accessories of the cult, and trees not merely abodes of the deities, but cult objects by virtue of their own merits. They are adored and venerated with ecstatic rites and dances, and their holy branches touched and shaken. Their sanctity is denoted by a special construction which cannot be called a shrine in the ordinary sense(155).

The tree cult, wide-spread in the early Greek religion, appears to have been tamed during historical times, as a result of the joint efforts of the *polis* and the oracle at Delphi.

In the popular Greek religion nevertheless, it survived till late antiquity. The worship of Artemis who was one of the oldest(156) and most individual deities, was closely related to the tree cult. The epithets *Caryatis, Cedreatis, Lygodesma, Lyaia, Phakelitis* are due to her connection with the tree(157). Her rituals, including dances and disguises, had often a very free or orgiastic character. Being one of the most popular gods, she enjoyed one of the most widespread cults in ancient Greece.

The sacred tree as a hierophany of nature's eternal regeneration, probably revealed to man the mystery of life. The dancers drew youth and immortality through their symbolic unification with the kernel of vital forces, the absolute being of living nature as a whole; a being which manifests itself as a timeless recurring becoming. A *palintropos harmonia* in the Heraclitian sense(158).

The age of Homer marks the end of the Dark age on the one hand, and the time of the appearance of the first temples on the other. This encourages us to seek for some kind of analogy between the early tree cult and the formation of the temple, on the ground of abstraction. In this spirit, the repetition of the columns - the one slightly different from the other - in the temple's *peristasis*, indicates a possibility of a connection with the timeless recurring becoming, manifestation of nature's eternal being, which the tree is here considered to represent. Thus all columns can be considered as aspects in space and time of one column, that has not any specific structural or sacred character on this level of abstraction.

The Classical column, with or without base, with its body vertically fluted and tapered towards the top, crowned with a capital, shows internal integrity and constitutes a coherent whole. Furthermore, as one of the constituent parts of the temple, it is a carrier of its essence. Thus, essentially speaking, the temple includes the column and the column includes the temple, or, the column is the temple. Therefore, the columns as well as the temple as a whole, represent the sacred tree as symbol of the timeless recurrence of nature's life forces. This change in the form of a religious representation is interconnected with the transformation of the means of conception of the world which characterized the beginning of the new age, as was discussed above. The modalities of worship and the meaning attributed to the Bronze age tree-cult cease to be obvious any more. Man tries to express the essence of things through reason. Thus, the new aspect of the essence of the tree-cult, its new state of being, has to manifest itself in the corporeal world through a different form. It operates as a formative force of the *peristasis* of the Classical temple at the very time of its genesis.

The fact that Samos, the place of the oldest found peristyle temple, is one of the

places at which the continuity of the Mycenaean past through the Dark ages is known to have been very strong(159), supports, or at least does not contradict, the above proposal. However, Nilsson's affirmation that "no single cult form has penetrated the whole cult to such an extent as the tree-cult has"(160), and the proof of a strong Mycenaean tradition on Samos during the Dark age, in combination with the fact that the archaeological findings from the Dark age are very meagre and do not, indeed, provide any particular evidence about tree-cult on the island during the Dark age, cannot give indisputable support to the view of a tree-cult origin of the *peristasis* of the first Heraion at Samos.

Generally, at such a point of transition from a mainly religious to a mainly political society, the formula of incorporation of modes of the past in the newly born world is defined by the new world, in order for change to be possible. That is to say, that if the abstract configuration of the tree-cult described above had some meaning to Homeric man, the connection of the *peristasis* to the tree-cult remains a possibility.

iii. The Sanctity and Anthropomorphism of Columns in the Minoan/Mycenaean Age and its Relation to the Classical Temple

The morphologically most prominent element of the Classical temple, its columns, have frequently been connected with anthropomorphic representations(161). The anthropomorphism of the columns has been considered as related to the sanctity of the columns in the Minoan-Mycenaean civilization on the one hand(Ill. 2-13), and with the anthropocentric ideals of Classical Greece on the other.

In the Minoan/Mycenaean religion, there is evidence that an anthropomorphic goddess had developed from the tree-cult(162). As far as the sanctity of columns as such is concerned, Evans affirms that structural columns or pillars were hailed as embodiments of a god or as cult objects. Nilsson nevertheless, in common with almost every scholar who has approached the subject, and based strictly on the archaeological evidence, believes that, most probably, only free-standing columns may have claim to this title(163).

On a seal cylinder from Mycenae, a row of six free-standing fluted and tapered columns with bases and capitals are represented; between them, a man is raising his hand in an attitude of worship(Ill. 2-13b). Although the role of these columns is not very clear, it can be assumed that they are sacred columns(164)(Ill. 2-14). On the contrary, the lack of any sufficient proof about the character of structural columns, does not permit us to accept them as hierophanies. Thus, most probably, the Minoan/Mycenaean past is not directly related with any anthropomorphic value attributed to structural columns of the Classical

temple.

The opinion can be expressed, however, that in the case of the temple the columns, by becoming structural, subordinate their individuality in order to participate in the synthesis of a whole. As in the case of free-standing columns, the hierophany regains its unity and constitutes the hierophany that consecrated the temple as a whole. In the case of the first temple of Athena on the Acropolis of Athens for example, according to myth, the goddess had to confront Poseidon at the very place upon which the temple was afterwards built, and after winning the contest, she became the patron goddess of Athens. The Parthenon was built in order to signify this primordial hierophany. In virtue of this hierophany, the Parthenon remained sacred throughout antiquity, although the value attributed to it changed according to the changing religious attitude of the Greeks in the realm of the *polis*.

iv. The Meaning of the Stone-Cult to the Classical Temple

The petrification of the temple that gradually started in the sixth century, in order "to be sung for ever"(165) as a manifestation of the eternal nature of the "new" universal principles, can be connected with the stone-cult.

In parallel with this survival of "primitive" types of cult in the unofficial Greek religion, the official one is characterized more by a historical dimension. That is to say, the elementary manifestations of the sacred present a development in their religious content or at least in their formal function. At one moment of history, a sacred stone is venerated as something other than its cosmic surroundings and it *is* absolutely, invulnerable, beyond change. This state of being in the stone, nevertheless, can change over the course of time. Usually, this change of the "form" of the stone on a religious level, is accompanied by a manifestation of the change on the material level(166).

We can follow this development in the worship of Hermes and mainly of Apollo. Of all the gods of the Greeks, Apollo had the closest relation to the stone cult. When Apollo superseded the ancient earth religion of Delphi(167), he took over the *omphalos* (navel) and its privileges. Pausanias, who lived in the second century A.D.,wrote about the *omphalos:* "What the people of Delphi call the *omphalos*, is made of white stone, and is said by them to be at the centre of the whole earth, and Pindar, in one of his odes agrees with this"(168). Much has been written on what the *omphalos* originally was(169). All agree, however, that it was a sacred stone which, since the beginning of the historical times at least and until late antiquity, was the point of communication of man with both under-

world and Heaven.

Before the entrance of every house in ancient Greece stood a pillar tapering at the end. It was the embodiment of Apollo *Agyieus* who protected the house from evil(170). Apollo *Karinos* in the Gymnasium of Megara was a small, pyramid-shaped stone, and Apollo *Lithesios* at Malea stood beside a stone as well(171).

Stone expressed permanence and power. Its hard, clearly definite form, was a symbol of the eternal, absolute character of the laws of nature. Stone *is*, for ever. This is probably the meeting point between the stone-cult and Apollo: the religious legality of the anthropomorphous Apollo, constituted a transformation of the religious legality of the man of nature, represented by stone.

In the case of the temple, the translation of its whole material existence into stone signifies a turning point in the evolution of its being. On the one hand, a transformation of the previous state of becoming that characterized the modes of worship of the temple, mainly made of wood and mud bricks in the prehistoric age, to a state of an eternal unchangeable being, is indicated through this petrification. It is accepted as the absolutely true for ever. On the other hand, however, a new state of the being of the temple is initiated, so far as the temple belonged to the new age. Although major changes on the morphological level did not occur any more after its petrification, the being of the temple underwent a slow and continuous evolution. The expression of this evolution within the realm of the *polis* will engage us next.

B. THE POLITICAL DIMENSION OF THE CLASSICAL TEMPLE AS A RELATION TO ITS PRESENT

a. INTRODUCTION

As it was discussed in the introduction to this chapter, the Classical temple, besides its fundamentally religious nature, constituted the symbol of *polis* from the time of its genesis. Until almost the end of Classical times, *polis* was considered as an all-embracing universal entity, the final stage of the development which human society as a whole and man as an individual could achieve. The harmonization of the Homeric god-given with the new man-made but still attributed universal authority justice, was the principal aim of the *polis* as such. In the Classical age, individual liberty and equality of the citizens in front of the law constituted the basis for the political field to operate. The Classical temple was the symbol of the identity of the *polis* in this sense. From the mid-fifth century onwards,

however, the deterioration of *polis*, expressed by the split between human justice and the justice of nature and the emphasis on the relativity and instability of the former, gradually leads to plurality and external conformity as far as the temple is concerned. The investigation of the meaning of the temple as it evolves within its political milieu will engage us next.

b. DIVINE AND HUMAN JUSTICE AS EXPRESSED BY THE FORM OF THE CLASSICAL TEMPLE

It was argued in the third section of Chapter One that *nomos* (law) within the limits of *polis* was man-made and intelligible in principle. Although it was conceived by the first legislators (Draco 621/20, Solon 594/3 and Cleisthenes 508/7) as relative and subject to change, it was considered, until the mid-fifth century at least, as sacred and immutable in practice. Almost as a rule, changes were introduced through legislation by decrees. In parallel to *nomos*, the Homeric, god-given *themis* survived under the name of *thesmoi*. Religious matters were dealt with mainly by *thesmoi*, which were, in principle and practice, sacred and unchangeable, offering no justification of their content.

Although double natured, *polis* was a divine and universal entity, ordered by god and human reason. In the philosophical field, the resolution of these two, apparently contradictory aspects of the identity of *polis*, was achieved through metaphysics. In the case of the temple, its metaphysical origin, its *eidos*, was located, as has already been discussed (2. 3. 5. 1.), in the realm of the Homeric religion.

The Classical temple is first and foremost the symbol of the Homeric religion, in which, although gods still hold sway over men, the process of individuation is already under way. As with the case of the law - divine or human - the form of the temple was accepted as sacred and immutable from the very time of its genesis and throughout the Classical period. Only minor changes, similar to those of legislation by decrees, could be accepted in order to express analogous changes in the political identity of the city-state through the course of time. The unity of the religious and political dimensions of the temple under the universal authority of the *polis* remains the principal characteristic of the identity of the temple, at least till the mid-fifth century B.C. Every change in the form of the temple indicates a closer approach to the *idea* of *polis* as such.

Within the Classical period, aesthetic pleasure deriving from the expression by the form of the temple of the essential unity between morality and politics, enjoys a universal authority. Moreover it expresses the particularity of the essence, the *differentia specifica* of

the temple as an individual within its particular culture. External formal characteristics, such as simple mathematical relations, technical precision, over-elaboration of the formal details and refinements although not essential to a work of art, give, nevertheless, pleasure to the spectator, as Aristotle argues. This kind of aesthetic pleasure seems to be given no less importance than the aesthetic pleasure caused by direct participation in the essence as expressed through the form, as the evolution of the temple within the Classical period shows. However, the expression of these formal characteristics is ultimately controlled by the essence(172). At the point of perfection reached by these characteristics in the second half of the Classical period, it is impossible to argue convincingly that perfectness in form had not become, to a certain extent, an aim in itself.

The use of refinements, for instance, was not just compensation for optical illusions, but mainly stressed the individual character of the constituent parts of the temple, expressing the political identity of the city-state. The earliest instances of *entasis* of the columns and the stylobate occur in the temple from the beginning of its appearance in stone. The temple of Hera at Paestum (early sixth century)(Ill. 2-14) and of Apollo at Corinth (c. 540 B.C.)(Ill. 2-15) provide some of the earliest, very pronounced instances of *entasis*. Gradually, in the fifth century, *entasis* was reduced, and along with other refinements such as tilted columns, enlarged corner columns, curved stylobate and architrave, became more elaborate(Ills 2-16-20). With the use of prefabrication (not according to a detailed design but with final shapes and sizes precisely cut and curved in situ) extreme visual subtlety was combined with simplicity in construction. The Parthenon represents the culmination of the evolution towards formal perfection(173)(Ill. 2-21).

From the second half of the fifth century onwards nevertheless, the *nomos* of the *polis* started to lose its sacred and universal character. The split between human justice and the justice of nature, which was mainly expressed in the teachings of the Sophists, opposed the relativity of the former to the universality of the latter. Political and individual morality started to become two contrasted domains(174). Law ceased to be a moral and political code which had grown in men's souls. The Homeric religion lost its meaning. The old, ecstatic forms of worship that had survived in the margin of the Homeric religion, started to become increasingly popular(175). As the *nomos* of the *polis* turned into an externally imposed compulsion, separated from morality as a universal norm, the mass production of laws started, according to the self-interests of the several political parties. Concepts like political individualism and equality manifested in the temple, gradually turned into plurality and regularity. The essential split between morality and politics was expressed through the first, and their superficial unity through the second. Despite the loss of meaning that underlies the form of the temple, the same form is maintained as a symbol of the following ages, due to inertia. As a consequence of regularity, preciseness in the elaboration of form

ceases to be an aim of art any more. Form follows the deterioration of its essence. Thus, formal characteristics such as the refinements, causing more difficulty in building - technical and economical - rather than expressing the essence, lost their meaning and use(176). At the same time, plurality is expressed by the introduction of more than one order in the columns of the same temple, for instanse. The concepts of plurality and regularity will be more extensively discussed in the next section.

c. POLITICAL FREEDOM AND EQUALITY AS EXPRESSED BY THE FORM OF THE CLASSICAL TEMPLE

We discussed in Chapter One that the notion of justice *(themis)* conceived as the social order by Homer and Hesiod, still remains under the control of supernatural beings. In the early sixth century however, the new justice of the *polis* as conceived by Solon, although it maintains a divine power, is intelligible in principle, based on a cause and effect relation between free individuals. In Solonian justice, the determinent agency of social order is sought in the ensuring of individual freedom, and through this of common freedom, in intelligible terms.

The concept of individuation can already be identified in the poems of Homer and Hesiod. We have discussed earlier that the evidence we have from the Minoan-Mycenaean age supports the conjecture that an important part of religious life at that time was enacted outdoors, far from the everyday existence of the settlements. The cultic activity performed in caves, on peaks and at tree sanctuaries (either identified by archaeological evidence or depicted in iconographies e.g. seals), reveal that human response to the experience of nature was expressed in great part through forms of nature. The shift from the prehistoric, "natural" modes of worship to an essentially man-made form articulated as a clear and intellectually coherent whole, seems to be expressed in religion by the organization of the divine genera by Homer and Hesiod out of the indeterminate deamons of nature of prehistoric times. The separation of man from the original unity of things in particular, as first expressed by Hesiod, is interrelated with the concept of form as the means through which things become sensible as individuals. The aesthetic dimension of the Classical temple comes to show this separation. Interrelated with politics and morality, it defines the evolution of the Classical temple throughout its life. The fact that the law of the *polis* was universal and immutable in practice until the second half of the fifth century at least, shows that the unity of the aesthetic with the political and religious dimension of the temple prevailed over their individual expressions. More than that, unity is the source of their separation.

Through the form of the temple its *eidos* acquires a corporeal existence. The notion of *enteleheia* according to which every individual thing contains its end and purpose of being within itself, defines the limits of this material existence as a principle of individuation. It gives form essential unity between its parts, that renders it self-sufficient.

The concept of individual freedom, as was ensured in the political field by the Solonian Justice, underlies the form of the temple through demands for self-sufficiency of the whole and of the parts within the whole. In this spirit, self-sufficiency is achieved in the form of the temple through the mastering of the interaction between cause and effect in its members. The causal relation between the members of the temple is expressed as a constant evolution of form ordered by the aim towards the achievement of the maximum result with the minimum effort. Thus, in the course of time, the Doric capital becomes less tapered and more conical, the columns more slender, and the intercolumnation spacings larger, for instance. Representing the political order, the conceptual order of the temple predescribes the causal relation between its parts in such a way as to insure the individual character of each, by connecting it into an ordered whole in intelligible terms. Thus the essence as expressed by Homeric religion is translated into matter through a procedure testable by the intellect.

This evolution is ultimately controlled by the essence, as becomes clear with the case of the columns, for instance, which throughout antiquity remained much thicker than what was needed in terms of structural strength. The self-sufficiency of the parts is actually achieved through the overcoming of a mere expression of their material function. The flutings, for example, release the column from its material existence, while the tapering stresses its individuality by manifesting an active response to the supportive function. Under the process of individuation, the strong tapering of both shaft and capital - which attached the column to the stylobate and the architrave rather than stressing its individual character - was progressively reduced and modified. This aimed to emancipate the column from the stylobate and the architrave, and in this sense, lead to maximum active participation between the parts of the temple. In architecture, as in the political field this was achieved only about a century after Solon's laws.

In the late sixth century, with Cleisthenes' reforms, through which political justice was emancipated from morality as expressed by the solidarity of the family, a real harmony between individual liberty and equality of the citizens in front of the law, was accomplished(177). The causal relation that underlies the process towards individual liberty in the Solonian Justice, gave its place to a dialectic relation between free individuals interacting on equal terms within the political realm of the *polis*. The harmonization between individual liberty and equality expressed in the political life of the citizens, which

was not easily achieved, constituted the quintessence of the concept of *polis* itself. Until the end of the fifth century, the universality of the *polis* served as the common factor through which this harmonization was possible.

As far as the Classical temple is concerned, equality built upon dialectics, far from being a frozen and superficial relation, is essential and creative. The fact that temples of different size do not follow a uniform scale, but differ from each other in the relation of their parts for instance, shows the essential character of equality based on a dialectic relation of the constituent parts. Regularity and individual liberty develop in parallel for a certain period. Diversity in the same or between different temples still prevents equality, far from resulting in a meaningless typification.

In the temple, the increasing demand for equality appears to form the necessary ground for the process towards individual liberty on an aesthetic level to be accomplished. The demands for equality in the realm of the *polis* were transferred to architecture as an increasing trend towards regularity. The temple of Aphaea at Aegina built about the turn of the sixth century belongs to the first of the temples that clearly aim at simple relations of parts. At the same time, the tapering of the shaft and the capitals are much more geometrical and reduced in comparison to earlier temples, in favour of the manifestation of the individual character of the columns(178). Considering the evolution of the temple in general, we could say that in contrast to the temples of the Archaic period, from the mid-fifth century onwards there are no differentiations between the front and flank columns, while the axial spacings in most of the Doric temples are uniform on both sides. In this way they give equal opportunities to the front and flank columns to express their freedom as individuals in order to collaborate on equal terms as a manifestation of the relation between the citizens within the city-state.

It seems that the evolution of the temple upwards, towards the achievement of the ideal of justice, gradually turns into an opposite kind of evolution away from the *idea*. The Classical period, that is to say the fifth century B.C., could be characterized as the transitional period. Towards the end of the fifth century, the excesses of individualism destroyed the concept of *polis* as a harmonic interaction between economically and intellectually free individuals ordered by a universally applied justice. The Parthenon could be considered as a representative of the climax of the transition, by being the closest to the ideal of the corporeal manifestation of the *polis*, showing the unity between its political and religious aspects, and, at the same time, indicating the overestimation of the aesthetic aspect of the temple as an expression of power and wealth at the expense of morality and politics in the traditional sense(Ill. 2-21). It seems that the concept of individuation as separation from the original unity, interwoven with the coming into being of the *polis*, and carrying

within itself the seed of the aesthetic dimension of things as separate from morality and politics, was momentarily expressed through formal sophistication that carried along with it plurality and anxiety before giving itself up to typification and formal deterioration(Ills 2-22,23).

The Parthenon itself shows some of the first instances of plurality in form, by its wealth of sculpture which was alien to the traditional Doric simplicity, and by being the first temple which combined both the Doric and Ionic orders. The development of its interior in the same way marks the first major innovation in the interior of the Classical temple since its appearance: the two internal rows of columns turn behind the statue, providing a more complex and elaborate background(Ill. 2-24). The temple of Apollo at Bassae establishes plurality in form, by introducing three orders, Doric, Ionic, and Corinthian as constituents of one temple. Its interior, in particular, continuing the sophistication of the Parthenon, combines a horseshoe colonnade that in contrast to anything existing in earlier temples is not functional, consisting in half-columns attached to short spur walls that rise only one storey in height instead of the normal two-storey columns. Another innovation is the replacement of the normal Doric columns of the cella by Ionic and Corinthian ones, as well as the running of a sculptured frieze above the interior columns(Ill. 2-25). These two temples are the most characteristic of the transitional period in that they show, in parallel with aesthetic perfection, plurality and anxiety, combined with a search for new forms. This search resulted in the building on a much larger scale of agoras, sanctuaries or even whole cities in the Hellenistic age. Perfection of detail and notions like individualism and equality expressed in individual buildings, gave their place to regularity of design and the handling of architectural groups(179). The democratic city-state had already given itself up to monarchical institutions. After the 338 B.C., with the Macedonian domination, the ideals of the *polis* had no meaning any more(180).

Simultaneously with the gradual demoralization of the law, which tended to become external conformity rather than an objective, universal moral order, the concept of equality gradually superseded the demands for individual expression of the parts of the temple, and led to the appreciation of the aesthetic dimension of its form *per se*, in separation from the universal justice it originally manifested.

Equality made lifeless through typification, along with lack of formal precision, constituted the main characteristics of the deterioration of the form of the Classical temple during the following Hellenistic and Roman age, which reached its climax with the "Rules of the Doric" as they were expressed by Vitruvius: "The thickness of the columns will be two modules, and the height, including the capitals, fourteen. The height of a capital will be one module, ..."(181). The typification of the relations between the parts of the temple

signifies a superficial attempt to keep alive the Classical spirit of a universal concept of justice based on a dialectic relation between free individuals. By modifying form into one easily approachable to an outsider, the individual character of the parts is destroyed in favour of this emptying of essence by typification. Paraphrasing Heidegger's words referring to Roman thought, we could say that "Roman *architecture* takes over the Greek *temples* without a corresponding, equally authentic experience of what they say, without the Greek *temple*" (182).

c. CONCLUSIONS

It has been argued that the Classical temple, besides its fundamentally religious dimension, constitutes the symbol of the *polis* as a universal half-divine half-human entity.

The religious dimension of the temple derives mainly from the Minoan-Mycenaean religion, as it was conveyed to the later Greeks through the Homeric and Hesiodic poems. More than that, the Homeric religion stands for the glorious Mycenaean past as a socio-cultural entity. As such, it forms the stable ground upon which the conception and realization of the *polis* become feasible. The Classical temple is, in this sense, the symbol of the Mycenaean world. It originates in the mythical palaces of the Olympian gods, by imitating the Mycenaean megaron. Its interior in particular, drew its sacrality from being an ark of the Mycenaean tradition, rather, than as a place where the cult was actually performed.

Although the main room, the cella of the Classical temple imitates the Mycenaean megaron, its exterior takes on a totally new form, having two aspects: first, as deriving its meaning from earlier symbols and rituals, and, second and most important, as the mirror image of the *eidos* of the *polis* itself.

The notion of abstraction as it emerged in the Homeric and Hesiodic world, as an approach to the unchangeable, universal and purely qualitative being that underlies both human life and nature, is the filter through which earlier cults could contribute to the meaning of the Classical temple. In particular, the tree and stone cults, considered as representing Nature's eternal being and recurring becoming, may be seen as a possible source of the stone colonnade around the cella of the temple.

As the symbol of the *polis* on the other hand, the temple expresses in principle its ideal of justice. In parallel to the universal and immutable character of the *nomos* of the *polis*, divine and human alike, the form of the temple was accepted as sacred and unchangeable throughout the Classical period. Minor changes only, analogous to legislation by decree, were accepted in order to express analogous changes in the political identity of

the city-state.

The aesthetic pleasure that derives from the essential unity between morality and politics is the principle and end of the form of the temple until the end of the Classical period. From the second half of the fifth century nevertheless, the gradual split between human and divine morality under which the *polis* ceased to be a sacred and universal entity, resulted in the growth of plurality and regularity as far as the temple is concerned. Through regularity, unity is maintained on a superficial level and thus violates aesthetic pleasure in the Classical sense, while plurality turns aesthetic pleasure into a personal - as distinct from universal - matter, a question of taste.

The concepts of individual freedom and equality of the citizens in the political field find their expression in the form of the temple. The individual freedom of the constituent parts of the temple is ensured first, through a causal relation between them, controlled by the essence, the *eidos* of the Classical temple. Equality in the sense of a dialectical relation between the parts, is built upon the individual character of the parts as much as upon their essential unity.

Following the changes in the political order, individual freedom turns into plurality of form, while equality results in regularity. The first instances of plurality and regularity, along with perfection of detail, characterize the form of the temple during the transitional stage of the separation between politics and morality. As the separation grows up, lifeless typification and lack of formal precision indicate the deterioration of the aesthetic dimension of the temple in the Classical sense. Universalism in the sense of unity gives itself up to universalism in the sense of separation, plurality and empty typification. Individualism, instead of gaining its existence from unity, becomes self-referent and self-indulgent. The concepts of universalism and individualism as expressed by Classical architecture in its decline rather than in its flowering have their equivalents in the Modern situation as well. But this will become clear in the next part of the thesis.

PART II

CHAPTER THREE

THE SECULARIZATION OF POLITICS AND THE GENESIS OF THE MODERN STATE

3. 1. THE EMANCIPATION OF POLITICS FROM METAPHYSICS AND RELIGION

In contrast to the Classical era where the concept of *polis* constituted a universal, all-embracing entity, politics in the Modern world has no relation with "living in the state" as a metaphysical principle and end; nor has it any relation to religion. This separation was the result of a long historical process, under which the meaning of the term "politics" was subjected to several transformations interrelated with the changes the Classical concept of reason underwent through the centuries.

The split between politics and metaphysics can already be identified in the Medieval rejection of metaphysics in favour of religion. The feudal system of the Middle ages, ecclesiastic and secular alike, represented the universal order established by God, and was, therefore, eternal and immutable. The unity between religion and politics derived from this primarily religious unity(1).

Medieval politics, although universal and originating, as did the Classical one, on a higher ontological level, differ essentially in the extent to which that ontological level is approachable by man. For the Greeks, as we have discussed already, justice as the order of the *polis* takes its validity and authority from reason through metaphysics. The knowledge of the Good is the outcome of argumentative reasoning. In the Christian world, political justice as celestial order - at least in principle - is obtainable by man only through divine revelation. The will of God is revealed through deep voluntarism(2).

As Ernst Cassirer from his neo-Kantian standpoint argues, beside this essential difference between the Medieval and Classical conceptions of politics, Medieval culture was not the outgrowth of a single system that had developed a separate and independent

theory of knowledge. Scholastic philosophy derived from two contradictory systems of thought, Jewish prophetic religion and Greek speculation(3). The Greek concept of reason although seemingly preserved, underwent a profound change of meaning in order to be fitted into the Medieval system from which it has never recovered. Based on an eclectic mixture of Platonic, Aristotelian and Stoic conceptions, the scholastics interpreted Greek philosophy in a symbolic way without any interest in historical truth. Even in the work of its main thinkers, reason was never conceived as autonomous. The absolute superiority of the Christian revelation of truth was never questioned.

Based on the authority of Plato, St. Augustine, the founder of Medieval philosophy, established a sharp distinction between the empirical and spiritual worlds(4). Aquinas, in attempting to originate the development of the state in the free and conscious activity of man towards the mystical vision of God, and thus to reconcile -in some sense- religion with metaphysics, marked the beginning of the later Medieval period(5). His thinking aroused strong reactions among the theologians(6).

The dissociation of reason from metaphysics in the Middle Ages, deprived reason of the formative power it enjoyed in the Classical times, which gave *polis* its universal authority and was expressed in the political field through dialectics. Even in this form however, reason did not prove less dangerous to the theocratic state.

During the Renaissance, reason was gradually detached of its Medieval foundation of faith(7). Religion, deprived of its transcendent authority, became a political tool, while politics, far from deriving from a higher, religious or metaphysical reality, was reduced to a technique, that had just to point to "the nature of things", in order to legitimize itself on an ethical foundation.

The secularization of politics during the Renaissance is best expressed in Machiavelli's book "The Prince"(8). As Cassirer points out, Machiavelli, in breaking away from the scholastic tradition, conceives of politics as a technique and never argues about political doctrines. "The nature of things" invoked by him when necessary, replaces any higher theocratic principle. He takes the facts of political life as the only valid basis for building up his arguments. The only political "virtue" for Machiavelli is strength(9).

Machiavelli's conception of politics as mere technique, had its parallel in philosophy in the rejection of metaphysics by the humanists. It was this that offered a fertile ground to the development of the concept of scientific method in the seventeenth century. By arguing that the only valid knowledge that man can have is of the social and not of physical or metaphysical phenomena (in so far as only the social phenomena are created by himself), the humanists re-established rhetoric on an apparently Aristotelian basis. Nevertheless, as

P. Kondylis asserts from a viewpoint similar to Cassirer's, through their interpretation of Aristotle the absolute validity of the metaphysical ground of Aristotle's demonstrative arguments was lost, since they incorporated the Aristotelian "categories" into the rhetoric *loci* (10). Furthermore, while the Aristotelian categories were the outcome of a process of abstraction, that led in the end to the essence of things (to the *katholou)*, the rhetoric *loci* were reached through evaluation of classified empirical material on an inductive analytic basis(11). Under this process, the term "method" gradually lost its Classical meaning of "art" that departed from the absolute ground of metaphysics, and was transformed into *ars inveniendi*, which could lead to the invention of the *loci* as probable truths(12).

In the seventeenth century, method in the sense of *ars inveniendi* transcends the boundaries of humanistic rhetoric, and joins mathematical physics in an everlasting relation, which transforms its originally social character(13). In this new role, method is no more confined to rhetoric probability. Transferred from rhetoric to the domain of nature, it regains an absolute validity, founded on the non-reasoned belief that reason is the inherent order of nature. On the other hand, method remains an *ars inveniendi*, in the sense that through the expression of physical phenomena by mathematical equations, it leads to the quantitative determination of unknown factors. The mathematical laws taken to underlie nature, however, conceived in this sense, far from belonging to the sphere of metaphysics, are based on a quantification of natural phenomena. More than that, what Aristotle describes as *symbebekota* (attributes), are considered, without any qualitative distinction, as constituting the thing itself(14). And since all attributes are in a constant process of change, and being has been reduced to its attributes, the concept of an unchangeable, immutable being distinct from the world of change and decay has been replaced by laws of change and movement. In Galileo's and Hobbes' universe alike, being is defined by universal and eternal mathematical laws in this sense, as they derive from the quantification of its attributes(15). Thus being is unified with the process of becoming on the level of mathematical physics. As such it could be characterized as supra-empirical rather than metaphysical(16).

In a similar spirit, Descartes abolishes the distinction between two essentially different ontological levels and their corresponding types of knowledge as they appear in the philosophy of Plato and Aristotle, and establishes the uniformity of all knowledge as an object of hypothetico-deductive mathematical thinking(17). By starting from Galileo's discoveries in physics, Descartes introduces the Modern role of philosophy to follow a step behind science. Ontology turns into epistemology and exploration of the human mind.

Philosophy was not the only field of expansion of scientific knowledge. The belief in the self-sufficiency of Modern science motivated a search for its expansion in and

domination over all the fields of human knowledge. In this spirit, Grotius claims that it is by no means impossible to find a "mathematics of politics"(18). The basic axiom of science, however, the belief in the rational structure of nature, which cannot be applied to political life by itself, is combined with the moral doctrine of "natural equality of men" in a revival of the Stoic teachings(19). Thus truth as provided by science appears to be united again with morality in a distorted combination. Distorted that is, in comparison with any older metaphysical or religious system but claiming *de facto* a universal status.

The principle of individualism deriving from the doctrines of the intrinsic equality of men and of the rationalism of nature constituted the basis for the development of the Natural Law theory of the State, which originated in the seventeenth and eighteenth centuries(20). Running from Grotius and Hobbes to Fichte and Kant, it introduces Modern politics. It "naturalizes" old legal conceptions and develops a timeless and spaceless and, in this sense, universal concept of the State as distinct from Society. It is emancipated from the Church, with a tendency to subject the Church to it, rather than the opposite.

During the "doubting and seeking" years of the Enlightenment, Natural Law's rationalism, individualism and universalism were severely criticized by the School of Historical Law, which, interconnected with the Romantic movement, originated in Germany in the eighteenth century. Instead of proceeding from and returning to the individual through a system of rational rules, Historical Law emerges from the *Volkgeist*, the spirit of the collective life of a particular place considered within its historical flow. The Historical Law theory of the State claims that, in opposition to the Natural Law theory, it constitutes a profound theory that re-establishes the metaphysical basis of society(21). The Modern polarisation between capitalist and centrally planned states originates in the conflict between the Natural and the Historical Law Schools, after the rejection of any metaphysical ground in political practice at least.

The investigation by Kant of the conditions of our knowledge, turns the ontological question about what things are into the exploration of the psychology of the human subject. This self-defined subject in scientific terms, is inadequate for motivating any political interaction. In contemporary political practice political interaction is actually motivated by supra-empirical factors such as economy.

The endeavour to re-establish the lost unity between reason and metaphysics on an essential ground was undertaken by Hegel. Hegel, although departing from the Historical theories, conceived of the spirit as transcending the limits of particular socio-historical conditions and becoming universal and eternal(22). Thus he attempts to embrace the whole of human history as it unfolds within the State: by applying to human history the scientific

concept of linear development, and combining it with a mode of reasoning alien to science (that is to say dialectics, which he borrowed from ancient Greece), Hegel establishes an all-embracing system. Since dialectics could not be founded on myth such as in Plato any more, after the centuries' long strife of human reason either to gain control over metaphysics or redeem itself from it, Hegel conceives of reason as constituting its own foundation. The triumph of reason is the underlying principle of his system(23).

In Hegel's system the State is the essence of historical life, and in so far as he defines reality in terms of history rather than of nature, the State is the supreme reality: "When conceiving the State, one must not think of particular states, not of particular institutions, but one must rather contemplate the Idea, God as actual on earth, alone"(24). Morality can only derive from the life of the State. Although Hegel has exerted an immense and enduring influence on Modern political thinking and practice, his system has lost its metaphysical standpoint and its inner unity and consistency through the attempted interpretations.

We see, then, that after a process of reductions and eliminations, reason arrives at the threshold of the Modern era free of metaphysics. The faith in reason, interrelated with and supported by the myth of scientific progress, constitutes the principle of the Modern age. In Modern political practice, reason is actually in the service of economic forces which determine the supra-empirical ground that underlies the interaction of individuals as members of the State(25). Unity is provided in the form of quantitative relations that derive from this supra-empirical foundation of the Modern State. It seems that man's process of self-elimination within the boundaries of human reason after rejecting metaphysics, was bound to motivate a counter movement away from the essence of things, and in this sense away from any form of understanding of creation and life. Or, as Kafka describes Modern man's situation after his emancipation from metaphysics, "He found the Archimedean point, but he used it against himself; it seems that he was permitted to find it only under this condition"(26).

3. 2. THE MODERN STATE AS A MEANS TO INDIVIDUAL FREEDOM

Modern politics, originating in the establishment of human reason as an autonomous and objective tool of knowledge by the seventeenth century and the Enlightenment, and earlier than that, in the humanistic principles of the Renaissance, claims to share with Classical antiquity a common ideal, the achievement of individual freedom through rational procedures in the society. This ideal however, after undergoing the Christian conception of

a socially - in opposition to the politically - referred individual, never managed to reattain its Classical sense of liberty which could only be gained through political dialectics.

Despite the fact that after the exploration of the limits of human knowledge, metaphysics lost its higher ontological status and thus ceased to be universal and eternal, morality was the last to be affected. It maintains a metaphysical standpoint which, placed though it be within human mind and soul, still claims universality. In the seventeenth century, in the philosophy of Descartes for instance, man arose himself as a "self-defining" subject, standing over and against the physical world. Nevertheless, in so far as the physical world was conceived in a quantitative sense, the uniformity and objectivity this implied threatened the autonomy of the self as part of the world.

Kant detected this threat and rigorously defended the freedom of the moral self. By so doing, however, far from solving the duality, he established a more rigid dualism between man's moral and physical selves, or between theory and practice, and metaphysics and politics(27). Thus the concepts of freedom and equality which in Classical times derived from the *polis* as a metaphysical entity and defined the political interaction of the citizens in this sense, now derive from man's inner, subjective self where Kant sees the potentiality of gaining universality only through a personal striving for deep, subjective morality which is totally opposed to the physical world(28).

Hegel attempts the synthesis, based on the postulate of a cosmic spirit who lives only through individuals and expresses itself through their thoughts and deeds. Thus the individual acquires its own freedom through the self-expression of the spirit(29).

The dualism between moral and natural self can be originally identified in the Stoic concept of "natural equality of men". That concept, although contradictory to the hierarchical organization of the Medieval world, constituted, along with divine revelation, the corner stone of the Medieval state(30). Reinforced through the seventeenth century and in the Enlightenment, the "natural ethics" of the Stoics offered the qualitative outfit that politics, after having been transformed to a mere technique, needed in order to reaffirm its secular authority(31).

In the Modern field of political practice, freedom and equality defined in terms of morality (but actually implying an economic or authoritative basis) turned out to be a substitute for metaphysics, or a fake metaphysics. On this ground Marx refers to every ideology as a lie, and Nietzsche sees conceptions of moral truth, objectivity and rationality as masks of a distorting will to dominate(32).

We saw in the first part of this thesis that in Classical Greece freedom and equality of

the citizens were interrelated with the concept of *polis* as an end, a *telos* in itself. Freedom and equality were legitimized in the sense that their principle and end derived from the *polis* as a metaphysical entity. They were the necessary factors for political dialectics, the quintessence of the *polis* to operate. They had meaning only with reference to the political, that is to say the public life. Morality unified with politics belonged to the public field.

In the Modern political world, freedom and equality defined in moral terms derive from and return to the individual by guaranteeing his privacy. As far as the moral ground of Modern politics holds for the individual within his own subjectivity, it cannot motivate any political interaction. Economy as a supra-empirical common factor is evoked in order to provide the unity needed as the basis for interaction in the public field. This interaction, far from deriving from individual autonomy in the Classical sense, regulates the issues of equality and freedom among the citizens in terms of economy. Since it is motivated by a factor external to the human *eidos*, it can never become essential for man.

Thus, interaction by itself hardly has anything to do with persons. Rather it deals with producers of products who never show either themselves or their skills and qualities, as in the "conspicuous production" of the Middle Ages, for instance. Moreover, as Arendt comments, Marx's assertion that economic laws are not made by man, but, like natural laws, are "functions of the productive conditions of the society as a whole", holds true only in the Modern society where "activity" is reduced to the human body's metabolism through labour. In this sense, the only exchange is consumption(33).

In our contemporary political thinking, nevertheless, Habermas still insists that reason - not merely analytic-empirical but also leaving some space for insight - can cause "communicative action". Rational explication and inner consistency of the value systems can motivate political interaction. Lyotard from a postmodern standpoint attacks him as offering us only one more "metanarrative" of Modernism(34).

Popper's criticism of the inductive method of science and his suggestion of a "piecemeal engineering" for a rational social reform offers a more "practical" proposal within the existing system(35). However, by rejecting any holistic approach as utopian, he cannot transcend the limits of Modernity.

In the Modern field of political practice, we can speak of two "types" of individual freedom and equality, corresponding to the two rival constellations of political systems, liberal capitalism and centrally planned communism.

Liberal capitalism is based on the individual's freedom to exchange capacities and commodities through the mechanism of the commercial market. It claims that it renders

individuals fundamentally equal on the basis of contractual voluntary exchange. To the extent, though, that all those without substantial property are required to work for the common good, this exchange is compulsory rather than voluntary(36).

In centrally planned systems the concepts of freedom and equality, although defined on an economic basis, are quite different from their counterparts in the capitalist state. Here individuals exercise their autonomy through state organization indended to develop their capacities for production and distribution of products. They are fundamentally equal by being denied the right to accumulate property, especially by means of production(37).

Thus the moral ground upon which Modern politics appeals as its departure point, does not, in reality, have any relation to political processes. The intersubjective relations which individuals can develop through personal moralities are inadequate to motivate any political interaction. They rather define the social field which is distinct from the political. Individual freedom, far from being related to politics, has the meaning of protection of the individuals' intimacy within the sphere of the social(38). This kind of freedom is regulated by the State which operates as a "system for determining the boundaries and rules of all the other systems of activity in the community"(39). On the other hand, the freedom implied in political interaction is defined in economic terms and has nothing to do with man as a person.

3. 3. CONCLUSIONS

We have discussed in this chapter the process which the Classical concept of reason underwent through the centuries up to Modern times and tried to understand the meaning of Modern politics and the role of the individual within the State, in terms of this process.

We saw that the striving of man to confine himself within the limits of reason, defined as separate from metaphysics, springs out of his desire to gain full control over his knowledge(40), and originates in the seventeenth century and the Enlightenment. The separation of reason from metaphysics is already present in the Medieval replacement of metaphysics by religion and the symbolic interpretation of Greek speculative thinking, while, in the Renaissance, reason was gradually emancipated from its Medieval foundation of faith.

In Classical times, the reasoned interaction between the citizens on the basis of tradition constituted the quintessence of the *polis* as a metaphysical principle and end. The unity between political theory and practice was given in this sense. In the Modern field reason

still defines political interaction, but far from dealing with metaphysics, it has the sense of "being rational"(41). As a result, political interaction bears the sense of quantitative relations, and theory and practice arrive separately at the threshold of the Modern age. Equality and freedom in the political field, far from having any moral foundation, operate in economic terms.

In contemporary political practice, supra-empirical factors seem to be the only legitimate ones which can derive after the quantification of all knowledge and the rejection of metaphysics. Any claim to a moral ground of politics can be nothing more than a moral disguise of science or a scientific disguise of morality. Any assertion of higher ideological principles on the basis of which suggestions are deduced about the way science must change in order to become socially acceptable, far from motivating political interaction, perpetuate the separation between political theory and practice. There could hardly be found any mode of reasoning, causal or dialectical, that could bridge the gap departing from the one or the other end alone.

We shall argue next that economy and function, as the supra-empirical and in this sense objective and universal factors in Modern architecture, constitute the corporeal expression of the Modern political situation. In Le Corbusier's words, "Economic law inevitably governs our acts and our thoughts"(42). Furthermore, any personal moralities or ideologies expressed in architecture in the Modern era, far from transcending the limits of personal myths, end up as social utopias.

CHAPTER FOUR

THE MODERN CONCEPTION OF ART AS AUTONOMOUS

4. 1. THE SECULAR ORIGIN OF MODERN AESTHETICS

Aesthetics as an autonomous philosophical discipline, distinct from ethics and metaphysics, which focusses solely on art, took its definite form as part of an integral system in the late eighteenth century, in Kant's philosophy. Kant's aesthetics constituted the philosophical elaboration of a body of concepts developed in treatises in France and England first and in Germany later, over about a century(1). The term aesthetics was coined by the German philosopher Alexander Gottlieb Baumgarten but opinions differ as to whether he can be considered the founder of the discipline. However, as Paul O. Kristeller states in his foundational for the history of aesthetics paper "The Modern System of the Arts: A Study in the History of Aesthetics", to which we are indebted, Baumgarten is the founder of aesthetics to the extent that he first conceived - though without adequately developing it - a general theory of the arts as a separate discipline within the system of philosophy(2).

Although historians generally recognize that aesthetics as a distinct discipline emerged in the eighteenth century, they also usually apply the term to earlier phases of Western thought, starting with Classical antiquity(3). This, however, should be done only with reservations, since such basic terms of Modern aesthetics as "art" and "beauty" bore quite a different meaning in antiquity, as well as in Medieval times and the early Renaissance.

The term art comes from the Latin *ars*, which is the equivalent of the Greek *techné*. *Techné* in Classical Greek means craft, skilled production(4). As Plato states it, *techné* proceeds from rational principles and rules, and, as defined by Aristotle, art is a kind of activity consciously controlled, reasoned and based on knowledge, that deals with the coming into being of a preconceived result(5). The stage of inspiration, connected with the art of poetry in particular, is conceived by Plato as "divine madness", something outside the

artist; *techné* consists of the cognitive procedure that controls and brings into being the results of the poet's inspiration(6). The Greek term for beauty, *kalon*, on the other hand, was never distinguished from the moral good. It was associated with art, but only in a very general sense(7). When Plato discusses beauty in the Symposium and Phaedrus, he is not referring to works of art but to human persons, in the sense of natural beauty, beauty of the soul and beauty of cognitions without distinction(8). Similarly, the Latin equivalent *pulchrum* of the Greek *kalon* does not particularly denote aesthetic beauty in the Modern sense.

Only in later thinkers does beauty start to acquire an increasingly aesthetic significance. In the third century A.D., the Neoplatonist Plotinus, in his *Enneads*, and particularly in the sixth treatise of his first *Ennead*, called "On the Beautiful" which exerted an immense influence in the development of the concept of aesthetics through the centuries, deals not only with the beauty of the soul, but with the beauty of sensuous things, as works of sculpture, architecture and music. The beauty of man-made objects is, according to Plotinus, a symbol of cosmic harmony and derives, ultimately, in common with the Soul, from the One cosmic principle, the Good(9). Plotinus' ideas about beauty permeated the works of Augustine, 354-430 A.D. The speculation of these thinkers concerning the various arts, neither occupies a major place in their theories, nor implies a separate system of aesthetics in the Modern sense(10).

As Tatarkiewicz points out in a paper entitled "Classification of arts in antiquity", there were numerous classifications of the arts in ancient times, none of which faced the possibility of considering what we call fine arts as a separate group of arts. A widely known classification was that of the Sophists, who, considering the aim of art, distinguished between useful arts, which are necessary for life, such as architecture, and pleasurable arts, which are cultivated for amusement, like painting(11). Plato and Aristotle divided arts from the viewpoint of their relation to reality: those which produce real things and those which produce images. Architecture was considered to belong to the first category as it produces a new reality, while painting to the second as it imitates the existing reality(12). The best known and most generally accepted classification in antiquity nevertheless, was the division of arts into vulgar and liberal. The liberal were intellectual arts, superior to the vulgar that required physical effort. Galen's classification in the second century B.C., mentioned as liberal arts rhetoric, geometry, arithmetic and astronomy, as well as music(13).

According to Paul O. Kristeller, the classification of the liberal arts was bequeathed to the early Middle Ages and retained down to the twelfth and thirteenth centuries. Architecture, sculpture and painting were listed among the subordinate mechanical arts, in the

scheme of seven mechanical arts formulated by Hugo of St. Victor in correspondence to the seven liberal arts. Many important subsequent authors, including St. Thomas Aquinas, adopted this classification(14). Whereas poetry and music, included in the liberal arts, were taught at many universities at that period, the visual arts were confined to the artisans' guilds. Furthermore, the treatises written either on the liberal or on some of the mechanical arts have a strictly technical character and do not attempt to connect these arts with others or with philosophy(15). The concept of beauty occasionally discussed by Aquinas and a few other thinkers, is not related to the arts but, as for instance in Augustine's writings, constitutes a metaphysical attribute of God and his creation(16).

It was not until the late Renaissance that the three visual arts, painting, sculpture and architecture were separated from the crafts. The term *Arti del Disegno* coined by Vasari, was the predecessor of the *Beaux Arts*. It was in Florence in 1563 that the first Academy of Art, *Accademia del Disegno*, was formed by the painters, sculptors and architects who no longer belonged to the craftsmen's guilds(17). Scientific subjects such as geometry and anatomy were included in the teachings of the Academy. The major part that some sciences played in the visual arts was generally emphasized. The institution of the Academies was the outcome of an attempt introduced in fifteenth century Florence to define the visual arts as requiring intellectual activity, that is to say as liberal. This was probably seen as a means to enhance the social and cultural position of the visual arts. Hence, a particular type of literature, quite different from the technical treatises of antiquity and the Middle Ages, appeared as a necessary support to the work of art(18).

In fifteenth century Florence, in Alberti's and Leonardo's writings alike, the relation of art to such natural sciences as optics and anatomy is emphasized. In his paper "On the Emergence of Aesthetics", Richard Woodfield states that Alberti's *De Pictura*, the first Western art theoretical text, manifests an application of the humanist principles of rhetoric to an analysis of painting(19). The work of art is treated as an extension of the physical world in terms of science, at the expense of its direct connection to the divine and the metaphysical. The continuum between the physical and the divine worlds, however, is not yet broken, but through its mundane representations the divine is drawn rather towards the phenomenal world than the opposite. Thus in *De re aedificatoria*, the first architectural treatise of the Renaissance, Alberti justifies his preference for round forms in sacred architecture on the ground of nature's love for the round. Nature, as understood by Alberti, "aspires to absolute perfection, she is the best and divine teacher of all things"(20) This can probably be considered as the first step towards the release of the visual image into an autonomous world.

It was in the age of Mannerism in the first half of the sixteenth century, that the work

of art was finally separated from its relation to the divine world. The visual arts gradually lost their meaning as crafts and turned into a world in themselves, constituted in show-pieces of the virtuosity of the artists. Architecture at that period lost its Renaissance clarity and became painterly, displaying the virtuosity of the artist for its own sake rather than for any religious significance(21). The emancipation of the visual arts from the crafts was interrelated with the increase of their social prestige and the rise of an educated amateur public to which they were addressed. In fifteenth century Florence, patrons shifted their interest from the works of art as pieces of craftsmanship to works as *demonstrazioni*, that is to say as a display of mental ingenuity from the artists(22). It has been argued in Marx-ist terms by the social historian Hauser that this change in the commodity function of art introduces its role in modernity(23).

As Richard Woodfield argues in the article already referred to, it was the Catholic Church itself, with the Counter-Reformation, that forced the separation between religious and secular art during the period of Mannerism. The spiritual world of the Renaissance, where the secular was more or less extended to incorporate the divine, was succeeded by a severe disruption of the unity of the two worlds brought about by the Protestant reformation. Protestant iconoclasm, with its attack on visual imagery as materially corrupt, could be considered as the first step towards stripping visual arts of their relation with the divine world as had been accepted by the Renaissance. The Classical thematology of the Renaissance was no longer subjected to Christian allegorization; it tended to be regarded as a "perversion of thought", instead(24).

In a reaction to the Protestant reformation, the Council of Trent maintained the utility of images, "not, however that any divinity or virtue is believed to be in them ... but ... the honour ... is referred to the prototypes which they represent ..."(25). Although the Council intended to re-assert a direct emotional relation between image and spectator, patrons inclined to be antipathetic towards religious representations, and, in terms of patronage, a rigid distinction between religious and secular art was established. And while religious art followed the role prescribed by the Council of Trent, secular art became the playground of artistic skill and a source of pleasure in this sense(26). The disengagement of art from its bondage to the divine during the period of Mannerism, Woodfield argues, marks its emergence into an autonomous world.

But in order to gain its autonomy, art had to cut its ties to the empirical world as well. It was during the Enlightenment in the seventeenth century, the century of Galileo and Descartes, that arts were separated from sciences and in this way from the empirical world. This gives ground to the view that the origins of Modern aesthetics lay in this separation(27). The famous *Querelle des Anciens et des Modernes* during the last quarter

of the century, was largely due to the great development of the natural sciences(28). In their attempt to shake off the authority of Classical antiquity, the Moderns developed a systematic comparison between the various fields of human endeavour and tried to identify the reasons why some intellectual activities which we now call Fine Arts could not follow a similar kind of progress to the sciences.

With Charles Perrault's *Parallèle des Anciens et des Modernes* (1688-96) the separation of the fine arts from the sciences is almost complete(29). In another of his writings, *Le Cabinet des Beaux Arts* (1690), Perrault opposes the concept of *Beaux Arts* to the *Arts Libéraux* and reaches a system of seven fine arts which is very close to the Modern system of Fine Arts, the only difference being the inclusion of Optics and Mechanics. The split between the Humanist principles of the Enlightenment and man's increased capacity to exercise control over nature, or between Fine Arts and Mechanics, could be dated to the foundation of the first engineering school, *L' Ecole des Ponts et Chaussées*, in Paris, in 1747(31). This split was bequeathed to Modern Movement architecture as an inner contradiction between its aesthetic and its practical self, that has not yet been resolved.

Despite the separation of the fine arts from the sciences due to their lack of progress in the scientific sense, the character of art as an intellectual activity was emphasized by the Academies which dominated artistic creation from the seventeenth until the nineteenth centuries. As a result, the organic growth that characterized the continuity of art in the earlier ages, was replaced by a convention of classicism and eclectic imitation of Renaissance models(32). The Modern expression of the autonomy of art was accomplished, on a theoretical ground, with the development of aesthetics into a distinct philosophical discipline during the Enlightenment.

It may seem strange that the emergence of art into an autonomous world distinct from the divine and from nature, was actually defined in terms of the human subject. This was probably implicit in the decision of the Council of Trent, where pictorial religious art was dealt with from the point of view of the emotions it was intended to arouse in the spectator, but finds an explicit form mainly in the philosophy of the British Empiricists and in Kant, during the Enlightenment.

While the Aristotelian concept of *entelecheia* indicated that the principle and end of the Classical work of art was inherent in the work, now the principle and end of art is situated within the mind of the human subject: that is to say, the artist on the one hand and the spectator on the other. Within the shift in the nature of human knowledge from religious and metaphysical to epistemological, which was accomplished in the eighteenth century, questions about the ontology of art were transferred into the exploration of the

psychology of the human subject(33).

The implicit relativity in any evaluation of a work of art constitutes the major obstacle for a definition of the aesthetic. This results in the rise of art criticism, which attempts to bring sensation and taste into the light of pure knowledge. David Hume's essay "Of the Standard of Taste", and Immanuel Kant's book "The Critique of Judgement", are considered to be the best texts dealing with the evaluation of art in modernity(34). Although they both maintain the principles of art as universal, they disengage the beautiful from the good and relate it to the human senses(35).

For Hume, beauty belongs to the domain of psychology. The mind is relatively passive and its operation entirely explicable in terms of the association of ideas. "Beauty is no quality in things themselves: It exists merely in the mind which contemplates them;"(37). But since the sentiments of men vary, Hume seeks for a "Standard of Taste", the universal principles of beauty.

The general principles of taste are uniform in human nature. In order that any judgement of a work of art be true, it has to be based on delicate sentiment, to be aided by practice, improved by comparison, and cleared of prejudice(38). Variations in judgement are due to defect or perversion of the above faculties. However, Hume admits, a certain degree of diversity in judgement is still unavoidable because of preferences of taste: some persons are pleased by simplicity, others by ornament, for instance. These, nevertheless, are "innocent" variations, for which there is no standard(39).

As far as moral principles and religion are concerned, Hume asserts that the critic has simply to overlook them when he expresses a judgement on art with regard to a certain historical period, since they are in constant flux and revolution(40). Hence the work of art is considered by Hume as universal and ahistorical, detached from morality, and subjective in the sense that human judgement substitutes for objective principles.

Kant goes further in the direction of the Modern notion of the autonomy of the aesthetic and defines *taste* as "the faculty of estimating an object or a mode of representation by means of a delight or aversion *apart from any interest.* The object of such a delight is called *beautiful*" (41). The judgement that comes forth in this way is called aesthetic judgement and is conceived of as distinct from cognitive judgement which is based on reason. It is based on *a priori* principles and related not to the object, but to the feeling of pleasure or displeasure of the human subject(42).

Like Hume, Kant conceives of beauty as subjective and tries to overcome the implied relativity in judgement. Thus, according to his third definition of the beautiful, the shape of

an object must indicate final purpose in terms of perception and this is not to be related to any end whatever: "Beauty is the form of *finality* in an object, so far as perceived in it *apart from the representation of an end*" (43). So beauty in architecture for instance lies beyond the practical or functional purposes a building has to fulfil, and derives from the feeling of pleasure it creates in the human subject.

In his "Critique of Pure Reason" Kant investigates the subjective principles upon which aesthetic judgement is based(44). He asserts that the representation of an object in the mind requires "Sensation" through which a multiplicity of distinct feelings arrives at the mind, "Imagination" which composes these feelings into perception, and finally, "Understanding" which unifies perception into concepts. In this way perception is transformed into objective knowledge. Imagination is described as a "blind but indispensable function". The word "blind" indicates the freedom of imagination and means that it "cannot anticipate its own results by conceiving them as purposes in advance of executing them"(45).

Aesthetic judgement is involved before understanding. It cannot be related to a sensation or concept in terms of causality, so far as it is based on *a priori* principles, while causal relations are *a posteriori*. It is founded only on the "form of finality" of an object. Since it is not a cognitive judgement, it deals only with the relation between the representative powers of imagination and understanding(46). The feeling of pleasure is "the consciousness of mere formal finality in the play of the cognitive faculties of the Subject, attending a representation whereby an object is given"(47). Through the formal finality of the object the feeling of pleasure is related to beauty. From the definition of beauty in terms of formal finality derives the necessity, and from this the universality of the judgement of taste(58). Necessity is represented as objective "under the presupposition of a common sense"(51). Common sense is "the effect arising from the free play of our powers of cognition"(50). Two further definitions of beauty are drawn: "The beautiful is that which, apart from a concept, is cognized as object of *a necessary* delight"(51), and "The beautiful is that which, apart from a concept, pleases universally"(52).

With Kant, the autonomy of the aesthetic from reason and morality, and in this sense from both the empirical and the divine world, is accomplished. The question of the ontology of art is replaced by the exploration of the psychology of the human subject. On this ground, the aesthetic strives to maintain an objective, universal, intersubjective expression. With the shift, however, from the question "What is art?" to the postulate of a peculiarly aesthetic attitude displayed by the subject, the essential qualities of the work no longer determine whether or not it is art. The boundaries of the aesthetic are indeed open to anything. Anything can be considered as art to the extent that it be experienced through the

aesthetic attitude. And while the universality of the aesthetic attitude proves rather an idealistic standpoint in practice, the distinction between art and non-art remains undecidable. The origin of Modern aesthetics in art criticism constitutes an expression of this situation.

4. 2. THE EMERGENCE OF THE ARTIST IN THE MODERN SENSE

Art, then, arrived at the threshold of the Modern age independent from reason and morality, and related to human psychology instead. This implied, on the one hand, the impossibility of any generally accepted distinction between art and non-art, and on the other, the development of art theory in an attempt to maintain the relation between art and the human subject. The change in the nature and the social function of art is interrelated with a major change in the role of the artist.

The artist becomes gradually free to express his own aesthetic attitude through his work. His "capacity to achieve" is overestimated at the expense of the actual achievement(53). Moreover, he has to support the work in theoretical terms, which in an extreme situation means that the work cannot stand as such without a theory.

Hence, in opposition to the minor attention he was given in antiquity, in comparison with the appreciation of his work - since continuity in tradition was far more important than any personal expression of the artist -, a totally new situation emerged in modernity. The personality of the artist is placed above art. This does not mean however that the artist in the ancient Greek world lacked individuality. Even in Archaic times, for instance, sculptors used to sign their works and proclaim their excellence. It is clear nevertheless that the real object of the praise was the work(54). In late antiquity however, certain behavioral traits were attributed to the artists. Thus Pliny mentions that the sculptor Kallimachos was nick-named "the niggler" due to his devotion to detail, while Apollodorus was called "the madman" because he often broke up a finished statue if it could not fulfil his initial conception(55).

It was not till the time of the Renaissance, however, that the psychological idiosyncrasies of the artists were over-estimated and their social position raised to an elite.

There are contradicting opinions among specialists concerning the effect of the guild-system - which did not become powerful until the thirteenth century - upon the lack of development of individualism during the Middle Ages. Coulton argues that the role of the organization in guilds was devastating for the personality of individual artists, while Doren insists that the development of the artists' personality was independent of the guild-

system(56). There is evidence from an earlier Medieval period that, as in early Antiquity, the masters themselves praised their works' excellence in inscriptions(57). In the Renaissance however, with the emancipation of the visual arts from the crafts and their rise to an intellectual activity defined in terms of their relation to the *artes liberales* - as discussed in the first section of this chapter - artists started to give a theoretical justification of their works in this sense. The change in the classification and nature of the visual arts from mechanical into liberal raised the social position of artists.

Simultaneously, for the first time in history, not only did the artist become capable of considering his art as an act of self-expression, but his personality was placed above his work(58). Early in the sixteenth century, artists were given such high prestige that Michelangelo, for example, was acclaimed as divine and ranked above the princes of the blood; Raphael possessed his own palace and associated with princes and cardinals as equals. These are mentioned by Vasari, in his *Vite de' piu eccellenti architetti, pittori et scultori Italiani* first published in Florence in 1550, which is the first book on the history of art(59).It is generally accepted that one of Vasari's aims in his "Lives" was to elevate the artist.

We argued earlier that the Renaissance artist, in order to be freed from the protective bond of the guilds, tried to link his work to the liberal arts. So far as the liberal arts were primarily sciences or teachable knowledge(60), the visual arts started to be regarded as an extension of the phenomenal world defined in terms of science(61). Thus Alberti, the first Western art theoretician, along with Leonardo, tried to prove that painting was a science. The type of versatile artist, who sought to unite both art and science, the *homo universale* who was the opposite of the craftsman artist, was developed(62).

Freed from the authority of the crafts(63) and based on theoretical training, Renaissance art became open to amateurs. This was particularly the case with architecture. Of the leading architects of the high Renaissance, only Antonio da Sangallo was originally an architect. Bramante was a painter, Raphael and Peruzzi combined painting with architecture, and Michelangelo was principally a sculptor(64).

The idea of genius, interrelated with the concept of originality, was a fundamentally new element in the Renaissance conception of art. The Middle Ages' role of the artist as a medium through which the eternal, universal order of things becomes visible, was superseded by artistic creativity that transcended tradition as much as theory(65).

The thesis that art is unteachable and that the artist is born was developed. In the late sixteenth century, writers such as Lomazzo and Zuccari think that the artist creates not merely *from* nature, but *like* nature. The artistic idea, the *disegno interno*, asserts Zuccari,

is the manifestation of the divine in the soul of the artist(66). The revival of Platonism contributed to the spread of the notion of the "divine madness" by which Plato refers to the poet, to the visual arts in order to increase their status(67).

Wittkower, discussing the difference between the Platonic *mania* and the Renaissance *pazzia*, mentions that while *pazzia* would be unthinkable without Plato's concept of "madness", Renaissance artists appropriated this inspired condition to themselves in a narcissistic way, probably because it would help them to share the prestige of poetry which belonged to the liberal arts. Yet, when Michelangelo uses the word *pazzia*, he means his "non-conformist obsessions" rather than the Platonic "madness"(68).

Most important however seems to be the fact that while the Platonic "madness" has its sole source in the divine, in the Renaissance - as Hauser argues - "the human mind has already become conscious of its creative nature..., and the derivation of its spontaneity from God merely serves, in the mind of the mannerists, to enhance its justification"(69). The basic belief of Leonardo that art follows nature had no reason to exist any more. The disengagement of the visual arts from the sciences that took place in the seventeenth century, marked the separation which set the ground free for the creative function of the imagination of the artist, which Kant describes as "blind". Thus, instead of the reasoned activity of the Classical artist, based on knowledge, the Modern artist starts from his "blind" imagination and *a priori* principles of aesthetic judgement.

The emergence of caricature as a new expression of artistic virtuosity in the seventeenth century, anticipated this situation. As Gombrich and Kris point out, "Once the artist's prerogative as a dreamer of dreams was asserted the sophisticated art lover of the seventeenth century would be flattered rather than hurt to look at his countenance in the distorting mirror of the great artist's mocking mind..."(70).

Until the middle of the sixteenth century, the new function of art as an act of self-expression of the artist, introduced by the Renaissance, was reinforced with displays of idiosyncratic temperament and eccentric traits by artists. Wittkower, describing the personality of the Renaissance artists, writes: "Their approach to work is characterized by frantic activity alternating with creative pauses; their psychological make-up by a tendency to melancholy; and their social behaviour by a craving for solitude and by eccentricities of an endless variety"(71). This refers not only to such leading artists as Leonardo, Michelangelo, Pontormo, Parmigianino, Barocci but also to a number of minor ones.

The value of melancholy derives its authority from Aristotle's view that only men of a melancholic nature are capable of *mania*. Thus Ficino, invoking Plato and Aristotle, in his *De vita triplici* poses *pazzia* and *maninconia* as prerequisites for the man of genius(72).

Michelangelo, who claimed to be a *homo melancholicus*, describes his situation in a famous sonnet: "Melancholy is my joy / And discomfort my rest"(73). The experience of art can only be gained through suffering and isolation. The meaning of this experience is immense, as it constitutes, as Michelangelo puts it in another sonnet, a condition for understanding: "Entire understanding none can have / Before he's experienced the immensity / Of art and life"(74).

From the middle of the sixteenth century, the decline of Mannerism marked the decline of the foibles and eccentricities of artists, without nevertheless affecting the appreciation of artistic virtuosity. The artist started to be integrated into the social and intellectual elite. Vasari, under whose influence the first Academy of Arts was established in Florence in 1563, portraying Raphael, talks about his superiority over the majority of artists who are detached from reality and whose eccentricity is mixed with madness and uncouthness(75). The institution of the Academies of Art which had their birth in Florence and flourished mainly in France between the seventeenth and the nineteenth centuries, played a principal role in this change in the type of artist(76).

Every recognized artist is now a *professore del disegno* and his imagination has to conform to the models imposed by the revival of Classicism by the Academies. This academic type of artist retained prestige till the Romantic era, when the "bohemian artist" with his non-conformism and eccentricities, started to rise again(77). As the Renaissance artists strove to gain their freedom from the authority of the guilds, the Romantic artists fought for liberation from the domination of the Academies.

We shall see in the next chapter that the eccentric individualism of the Renaissance and the Romantic era, along with the intellectualism first brought forward by the Academies, was re-enacted by the avant-garde of the twentieth century. The disruption within the social tended to be substituted by communication on the intellectual level.

4. 3. "DISINTERESTED INTERESTEDNESS" AS A SHARED PRINCIPLE IN THE MODERN AESTHETIC ATTITUDE

We argued in the first section of this chapter that in the Modern world the autonomy of the aesthetic dimension of the work of art from the empirical as well as from the divine world is defined in terms of the human subject "apart from any interest". Which is to say that the enjoyment involved in the experience of the aesthetic is not conditioned by any external, practical interest. "Interestedness" is "practical" in the sense that it refers to an

anticipated goal. Kant considers the "delight in good" for instance as a "practical" interest, since it implies an end. As such, it is alien to the aesthetic judgement(78).

The concept of "aesthetic disinterestedness" is taken by Kant to be the "first moment in the judgement of taste". From this he deduces the definition of the beautiful as universal(79). Hence, it constitutes the basis of the relation between the viewer and the work of art. The significance of "disinterestedness" in Modern aesthetic theory and criticism is vital.

Although the concept started to acquire a theoretical formulation in eighteenth century British thought(80), and found an integrated place in philosophy with Kant's "Critique of Judgement", its origins, as far as the attitude of the public towards the work of art is concerned, can be traced back to the era of the Renaissance(81).

Actually, the autonomy of the aesthetic criterion in terms of the pleasure it gives to the spectator was first advocated by Aristotle: but there are fundamental differences, however, between that and the Modern concept of aesthetic autonomy. As was argued previously, for Aristotle, aesthetic pleasure, *edoné*, far from being derived from the psychology of the human subject in the Modern sense, comes forth from *enteleheia*, the work of art as an autonomous ontological entity. Furthermore, it is not related to external, formal characteristics, but to the *eidos*, the essence of the work, its meaning within its culture. *Eidos* is conceived as universal and immutable. *Edoné* is achieved through *mimesis*, that is to say recreation of the essence of the work by the spectator. Thus the work is understood in its own terms. Yet, any diversion of the work from the moral and logical criteria of the social milieu damages the aesthetic pleasure of the spectator.

We have already discussed how during the Renaissance the emancipation of the visual arts from the crafts and their rise from mechanical into liberal arts increased their social prestige and laid the ground for an amateur interest in the arts(82). The artists' attempt to define the visual arts in terms of science as well as the stress on art's fictionality imposed by the Church, forced the disengagement of art from the divine. From Mannerism onwards, the patrons, confined within the limits of secular art, enjoyed the exercise of artistic virtuosity as a display of the creative function of the artist's imagination. The enjoyment experienced in this way, released through the break between art and the divine, posed the foundations for the attitude of "disinterested interest" on behalf of the spectator. The relativity of taste implied, gave birth to art criticism which started to develop in Italy in the sixteenth century, carried on by and addressed to an amateur public(83).

It was not until the late seventeenth century in France nevertheless, when, as a consequence of the *Querelle*, the fine arts were separated from the sciences, that the way was opened widely to the autonomy of the aesthetic indicated by the notion of

disinterestedness. About that time, the art public started to grow and widen as never before. Up to the second half of the seventeenth century, the Academy had preserved the exclusive right to express an opinion on artistic matters. For the first time now its authority was disputed and it was forced to appeal to a wider public. As a consequence, the circle of people interested in art was broadened to include not only artists, patrons and collectors, but non-specialists as well(84).

In order to elucidate the idea of disinterestedness further, we must give a short account of the emergence of the term in the eighteenth century theory. The task of the historical investigation of the notion of disinterestedness was undertaken by Jerome Stolnitz in his seminal paper "On the Origins of "Aesthetic Disinterestedness". A review of the main points of this paper will follow.

"Disinterestedness", as argued by Stolnitz, comes into being through eighteenth century British thought. At the beginning of the century, Shaftesbury, a follower of Plato and Plotinus, departing from "contemporary controversies in ethics and religion"(85), drew attention to the appreciation of beauty, aesthetic and moral alike, for the sake of the pleasure it causes. When he describes the virtuous man as a spectator, he uses the term "disinterested" to denote not any action related to an anticipated goal, but the state of "barely seeing and admiring"(86). This refers to "internal sensation" since the pleasures of the sense are always and necessarily "interested" for Shaftesbury. In one of his last works, Shaftesbury deals with the aesthetic on its own for the first time; furthermore, he opposes disinterestedness to the desire to possess or use an object, a conception which is widely adopted in Modern aesthetics in general(87).

"Disinterestedness", as first defined by Shaftesbury, had been a recurring theme in eighteenth century British thought. Shaftesbury's views on disinterestedness are followed by Hutcheson, who goes further in that he excludes from the aesthetic experience the role of any form of knowledge about the object. Intellectual or cognitive pleasure caused by knowledge of the object is wholly different from aesthetic pleasure(88).

The concept of disinterestedness is implicit in Burke's analysis of beauty. He opposes it to "desire" or "lust" "that hurries us to the possession of certain objects"(89). A beautiful object can be perceived as such only if it is perceived disinterestedly. He calls "love" "the satisfaction which arises to the mind upon contemplating any thing beautiful"(90). Dealing with the sublime, he relates "delight" to "distance": "When danger or pain press too nearly, they are incapable of giving any delight... but at certain distances, and with certain modifications, they may be and they are delightful"(91).

Disinterestedness as employed by Shaftesbury, Hutcheson or Burke is not taken as a distinct feature in the aesthetic experience, but only to elucidate other concepts such as beauty or love and in this way it is related to the faculties of aesthetic awareness or to the responses which are aroused by the experience. Archibald Alison, at about the end of the century, was the first to dissociate the aesthetic attitude from the other components of aesthetic experience. Following Shaftesbury, Alison rules out from the aesthetic the self-concern of interest as well as "the useful, the agreeable, the fitting, or the convenient in objects"(92). Then he goes further to argue that the mind has to be in a certain state in order to appreciate beauty and sublimity. "The state of mind ... is most favourable to the emotions of taste ... in which the attention is so little occupied by any private or particular object of thought, as to leave us open to all the impressions, which the objects that are before us can produce. It is upon the vacant and the unemployed, accordingly, that the objects of taste make the strongest impression"(93).

Unlike his predecessors, Alison holds that there are no "aesthetic objects" on their own merits, but an object can be aesthetic only if certain conditions of attention and interest have been satisfied by the spectator. The examination of the peculiarities of the aesthetic "state of mind", permits Alison to deal with less obvious features of the aesthetic: he asserts for instance, that aesthetic attention is impossible as much for the philosopher and the art historian, as for the critic, because it presupposes lack of thoughts or feeling in relation to the object. On this ground, he insists that criticism "never fails to destroy" aesthetic appreciation.

A particular place in the first moments of Modern aesthetic theory is occupied by Addison, who, about the middle of the century devotes his Spectator "Essays" to the Imagination. This, as Stolnitz argues, implies the experience of disinterested perception(94). It seems that Addison tries to identify the specific faculty of the mind which accommodates and serves the disinterested interest. Thus among sensation, imagination and understanding, he singles out imagination. Shaftesbury related the concept of disinterestedness to reason, and Burke to sensation, while the meaning of disinterestedness to all three is essentially the same. The reason Addison attributes the concept to imagination - argues Stolnitz - is simply because its meaning is "loose and uncircumscribed". For Addison, imagination finds pleasure in dwelling upon the ideas of colour, figure, etc.

Hence, the concept of aesthetic disinterestedness comes to be foundational in Modern aesthetic theory, while terms like "fine art", "beauty", "good taste" come to be defined with reference to it. Aesthetic disinterestedness, instead of deriving from the ontological position of the aesthetic object, originates in the mind of the human subject. As a consequence, the boundaries of the aesthetic have been widely opened. Not only art, but nature, the sciences

and generally anything can be an object of disinterested perception. On the other hand, by definition, disinterestedness excludes morality, reason, feeling, any self-referred or practical interest. As such, it cannot be subjected to criticism.

CHAPTER FIVE

THE MODERN MOVEMENT ARCHITECTURE: FORM AS THE BATTLE-GROUND OF AESTHETIC VERSUS ECONOMIC IMPERATIVES

5. 1. INTRODUCTION

The architecture of the Modern Movement seems to have emerged out of two different but related attitudes towards knowledge. The first is the replacement by economic imperatives of the religious or moral supra-human principles which underly social and political interaction in pre-Modern societies. The second is the development of the Modern notion of the aesthetic which, emancipated from morality and religion, was deprived of its ontological status and defined instead in terms of human psychology.

In fact, the changes in social and political conditions as well as in the nature and the meaning of aesthetics are expressions of a fundamental shift in the nature of human knowledge from a metaphysical to a secular basis. In a process whose origins can be identified at the end of the Classical era and which was mainly accomplished during the Enlightenment, man attempted to explore, define and finally confine himself within his own limits in terms of knowledge. Departing from this process, Modern architecture substituted history and morality for an a-historical and a-moral intellectual order, that derives its ultimate principles from geometry and nature.

Modern architecture, although it belongs to the sphere of the aesthetic in common with the other fine arts, has, in contrast to them, to satisfy certain practical purposes: by definition, it has to accommodate aesthetic as well as practical requirements. The contradiction inherent in the Modern Movement resides in the fact that it never managed to resolve the duality between its aesthetic and its practical dimensions or between form and function. The fundamental difference between the Modern Movement and Classical architecture lies in the fact that this duality is well resolved in the case of Classical architecture. We argued

in Chapter Three that in Classical times the meaning of art was skilled production of a preconceived end or principle that existed as a metaphysical ontological entity as *idea* or *eidos*, irrespective of the artist. It is obvious that a split between form and function would make no sense in the case of Classical architecture.

In Modernity, the position of architecture seems exactly the opposite. On the one hand, the aesthetic factor is defined by Kant "apart from any (moral or other practical) interest" and thus is incompatible with the practical needs architecture has to serve. On the other hand, the practical factor is conceived as operating within the social-political framework of Modernity, which means that it has to follow its principles. Technological development and the requirement for function which were brought about by economic imperatives constituted the social basis of Modern Movement architecture. Moreover, the economic foundation that underlies technology and function in Modern society, appears in the Modern Movement - in response to Modern politics - as a highly moralistic ideal. The roots of this kind of morality can be projected back to the Stoics' "natural ethics"(1). It was asserted in Chapter Three that the role of morality in modernity is far from political. In fact, it preserves the autonomy of the self threatened by the objectivity implied in the quantification of nature. In this sense, morality is a subjective matter, and as such it can lead to personal solutions but cannot provide the unifying basis which is necessary for political interaction to operate. Economy as a factor external to the human *eidos*, is incapable of forming this basis. The paradoxical situation where the aesthetic criterion claims absolute autonomy, while the practical one asserts that in social terms it is the only true source of form, indicates the essential gap upon which Modern Movement architecture was built.

The Enlightenment's search for objectivity on a rational basis operated as a link between the Modern Movement and Classical architecture. Neo-Classical architecture emerged in the mid-eighteenth century through a precise reappraisal of antiquity. In parallel with the extraordinary technical changes which began to advance rapidly at that time, this seems to have produced the necessary conditions for Modern Movement architecture to appear. Both are expressions of the transformed attitude of man towards nature within the secularization process of the Enlightenment.

In the pursuit of a sort of "natural ethics", which, since the Renaissance had been to a certain extent embodied by Rome, the architects of the Enlightenment looked upon Greek architecture as the true style from which Roman architecture had drawn its origins. Greek architecture represented the most ancient period of human history; it was seen almost as a work of nature(2). Thus architectural truth, and consequently beauty, could be derived directly from nature conceived as independent from metaphysics. The implied dualism between morality and nature was for the first time clearly expressed in architecture during

the Neo-Classical period.

More than half-a-century before the first Neo-Classical buildings appeared, an early desire for "natural" truth had brought the validity of the Vitruvian canons under question. In the late seventeenth century, Claude Perrault, in his treatise, criticized the Vitruvian proportions and elaborated his own distinction between "positive" beauty and "arbitrary" beauty. He attributed to "positive" beauty a normative role related to standardization and perfection, and to "arbitrary" beauty an expressive role related to a particular circumstance or character(3).

Going a step further in the same direction, Abbé de Cordemoy in his *Nouveau Traité de toute l' architecture* published in 1706, replaced the Vitruvian attributes to architecture, *utilitas* (utility), *firmitas* (firmness or solidity) and *venustas* (delight or beauty), by his own *ordonnance*, *distribution* and *bienséance*. The first two refer to the proportioning and distribution of the Classical orders, while the third bears the meaning of fitness or appropriate application(4). With the concept of *bienséance* Cordemoy foreshadows Blondel's ideas about the need for differentiated formal expression in response to the varying social character of different *types* of buildings(5). Furthermore, Cordemoy launches a direct attack against the ornamental use of the orders, or what he calls "architecture in relief". Instead of the dramatic forms of the Baroque, he proposes geometrical purity(6).

In 1753, Abbé Laugier in his *Essai sur l' architecture* asserts the "primitive hut", consisting of four tree trunks, supporting cross beams and a pitched roof(Ill. 5-1), as the primordial image of architectural truth: "the model, upon which all the magnificences of architecture have been imagined"(7). Any metaphysical meaning which the orders could still have carried through to the Renaissance and the Baroque, was definitely rejected in favour of a rational prototype drawn from nature. The universality of the prototype was ensured in so far as it could be considered as the basis for a sort of classicized Gothic structure, or, in Kenneth Frampton's words, "a projection of Gothic structure into Classical syntax"(8). Greek architecture was seen as a direct derivative of this primal form that embodied "natural" truth. The church of Ste-Geneviève by Soufflot, which was begun in Paris in 1755 on the basis of the rational simplification advocated by Cordemoy and Laugier, constitutes the first building of Neo-Classical formalist architecture(9)(Ill. 5-2).

The impulse towards the discovery of the true principles of architecture through a rational reassessing of the past, stimulated the rapid development of archaeological research. On the basis of Vitruvius, archaeological expeditions were extended beyond the frontiers of Rome and during the first half of the eighteenth century, the Roman cities at Herculaneum and Pompeii were discovered and excavated. Visits to Paestum and other

Greek sites in Sicily and Greece followed(10). Measured drawings of the Greek monuments were soon published offering actual ground for challenging the Vitruvian canons. J. D. Le Roy's *Ruines des plus beaux monuments de Grèce* (1758), James Stuart and Nicholas Revett's *Antiquities of Athens* (1762) and G. M. Dumont's *Sequence of Plans, Sections and c. of Paestum* (1764), published closely upon one another, show the intensity of the research.

The most influential book on Classical archaeology appeared in Germany a few years later, namely J. J. Winckelmann's *Geschichte der Kunst des Altertums* (History of Ancient Art), published in 1764. Following the doctrine of the autonomy of the aesthetic discipline, as it had been elaborated within a rational framework by his teacher A. G. Baumgarten, Winckelmann conceived art as an independent system evolving in itself, and tried to identify its first origins. He concentrated on the formal evolution of Classical art but attacked the evolutionary theory of development that had been unchallenged hitherto, by exposing the Roman works of sculpture as forgeries or imitations of Greek works. He classified antique sculpture into four periods: the first, the "direct and severe style" dated up to the time of Phidias; the second, the "grand and angular style", up to the time of Praxiteles; the third, the "beautiful and flowing style", up to the decline of the school of Praxiteles; and the last, the "style of imitations" up to the time of Imperial Rome(11). It is characteristic of Winckelmann's formal kind of approach that he considers as the greatest period not the fifth but the fourth century B. C., where - as it was shown in Chapter Three - artistic virtuosity was most explicit at the expense of essence. His theory, however, caused a major shift towards Greek art.

Laugier's position on the one hand and Winckelmann's on the other, gave rise to the two diametrically opposite poles around which Neo-Classical architecture evolved in the nineteenth century: the Structural Classicism which emphasizes structure as the source of truth, and derives its ultimate principles through a rational appreciation of nature; in this spirit, August Choisy, for instance, considered the Doric order to be the application of woodwork to stone(12); and the Romantic Classicism which, on the basis of a secular aesthetics, stresses form as the essence of architecture. This duality was handed down to the Modern Movement, which credited itself with the task of resolving it.

In the late nineteenth century, within the Romantic Classicism's search for the archetypal, eternal form common in art and nature, regulating lines and arithmetical relations were assessed as the unique source of the beauty of Classical and Medieval architecture. Pythagorean and Platonic ideas were invoked as a theoretical support to this research. The majority of the scholars (G. Dehio, Th. Ficher, M. Raphael, P. O. Wolff, E. Moessel, A. Thiersch, J. Hambidge) claim that the simple geometrical forms - triangle, square, circle

and regular polygons - with all the relations they create, constitute the basis for the conception of form in a work of art. One or two of them (W. W. Lloyd, M. Theuer)(13), by refusing the validity of any geometrical rule, maintain that simple numerical ratios are what defines harmony in a work of art(Ills 5-3). Some of these theories (such as Hambidge's and Theuer's) verify more or less the validity of various mathematical systems in the architectural forms of the Classical era.

However, mathematical, abstract configurations are not capable of existing in the corporeal world in and for themselves. Furthermore, they cannot predefine the form of anything in existence(14). They gain their existence only attached to concrete forms - the form of the Classical temple for example. Through analytical methods and based on the assumption that a work of art can originate in bare mathematical relations, the work is reduced to lines and two-dimensional figures in such a way that the same relations could be used as patterns for designing almost anything. Hence, the mathematical relations in which these theories concluded convey nothing essential about the particularity of a work of art, nor could they be taken as the archetype, the *idea* of this work. This misinterpretation of Plato for whom proper measure was the means for the manifestation of the *idea* in the corporeal world, is obvious.

This separation of numberness from existence - numberness still claiming universal authority - has been bequeathed to the Moderns as the basis of an objective, timeless world of universal forms. In this spirit, the form of the Parthenon serves for Le Corbusier rationality and individual imagination, at the expense of creation within the context of a particular age.

5. 2. THE MODERN MOVEMENT QUEST FOR AESTHETIC AUTONOMY

Modern Movement architecture, far from having a simple functionalist conviction (which actually applies only to the International Style after the 1930s), is a complex movement whose principles, as Bruno Zevi argues, "are open, flexible, experimental, pragmatic; destroying every convention, they always go back to the "Zero Degree""(15). This "Zero Degree", of course, implies a *tabula rasa* where architecture is a matter of invention as opposed to tradition. Knowledge is related to the invention of new forms on a rational ground with reference to function and technology as well as to intellectually derived abstract principles.

Although the character of the work of architecture as a use-object was often

overstated by some of the leaders of the movement, the priority of the aesthetic factor is apparent in the experimental investigations of major trends within it. Intellectual principles that derive from abstract reasoning, nature or technology, govern the aesthetic requirements of Modernist avant-garde groups such as Purism, De Stijl, Constructivism, or Expressionism.

The Cubist movement that represents the most striking event in the development of art in the first half of this century, is an immediate source of ideas and formal devices for Modern architecture(16). The theoretical investigations that underlie the architecture of Purism, De Stijl, Constructivism, or, indeed, Modern Movement architecture in general, were greatly influenced by the "conceptual" mode of representation suggested by Cubist art. The effect of Cubist aesthetics upon Modern Movement architecture is obvious in the intersection of volumes and surfaces, the interpenetration of inner and outer space, the conception of the plane as opposed to mass, and the use of simple, geometrical, prism-like forms which represent the formal principles of this architecture.

The Cubists rejected the "perceptual" mode of the Impressionists as transient and unfaithful, in that it is related to a particular instance of a visual subject, in favour of the stability and universality offered by conception(17). However, they maintained a basic reliance on the visual world. They adopted the restricted range of the Impressionist thematography - landscape, still life, portraiture - in an attempt to choose subjects as emptied as possible of symbolic, historical or literary meaning(18). As Maurice Raynal (an early apologist of the movement) states using Kant's words, Cubism aimed at a "finality apart from any end"(19). In a similar spirit, Daniel-Henry Kahnweiler - with reference to the distinction made by Locke between primary and secondary qualities of the objects - considers the object's form and its position in space as the primary qualities of painting, and such properties as colour or tactile quality as secondary(20). Although this distinction is more related to the first, "analytical" phase of Cubism(21), it is indicative of the general Cubist trend to recreate the world with means that refer to form alone in terms of the intellect. By doing so, Cubist art becomes "essentially independent" and in this way "universal". As A. Gleizes and J. Metzinger discuss in *Du Cubism*, the autonomy of Cubist art lies in its neutrality of essence:

> The picture bears its pretext, the reason for its existence, within it. You may carry a picture with impunity from a church to a drawing room, from a museum to your study. Essentially independent, necessarily complete, it need not immediately satisfy the imagination: on the contrary, it should lead it, little by little, towards the fictitious depths in which the co-ordinate light resides. It does not harmonize with this or that environment; it harmonizes with things in

general, with the universe: it is an organism(22).

The reality of conception on the one hand and the search for truth in visual experience on the other, are the two principal, although diametrically opposite, statements of Cubism. Gleizes and Metzinger write: "the visible world can become the real world only by the operation of the intellect"(23).

Cézanne is considered as the forerunner and main source of early Cubism. The truth of human vision and the unity of the represented form in itself constituted his principles of composition. Maintaining a single compositional plane, he arrived at a distorted, non-perspective form after a process of multiple viewings of the object from discrete points. In order to correspond to the limits of human vision, he organized his forms in discrete areas. He further distorted them to achieve formal contrasts - lines meeting at right angles, for instance - and an overall two-dimensional unity. With the technique of multiple viewpoints or *passage* pictorial unity is achieved between near and distant objects(24)(Ill. 5-4). Picasso and Braque at first, in 1908-9, assimilated Cézanne's principles of representation, giving rise to Cubism. By putting emphasis on some of Cézanne's methods, such as *passage* and the inner autonomy of the visual image, they arrived at a completely new kind of visual reality(Ill. 5-5). Conception was established as the new means of achieving truth as far as the visual world was concerned. This attitude of the Cubists towards art culminated with the *papiers collés* and their paintings of 1913-14(25).

Edward Fry attempts an approach to Cubism on the basis of contemporary philosophical thought. He finds a parallel between Bergson's stress on the role of duration in experience and the methods of Cézanne and the 1908-10 Cubist art. Bergson, in such works as the *Introduction a la Metaphysique* (1903) or *L' Evolution Créatrice* (1907) claims that the perceptual information about a given object of the empirical world accumulated over a period of time in the memory of the observer, becomes the basis of the observer's conceptual knowledge of the object(26). This cumulative psychological process based on perception, which seems to characterize the compositional rules of early Cubism, does not apply, Fry argues, to the *papiers collés* and the paintings of 1913-14.

In the *papiers collés* and the compositions of 1913-14, the object represented did not stand for a particular object of the empirical world(Ill. 5-6). It represented a class of similar objects by exhibiting their essential formal qualities. Essence was approached by intuition, and this, in contrast to the Cézannian "scientific" method, allowed for a multiplicity of solutions. For, in Picasso's words, "A head ... was a matter of eyes, nose, mouth, which could be distributed in any way you like -the head remained a head"(27). It becomes clear that the meaning of essence or intuition here strictly refers to form as such. As Apollinaire

remarked "The subject has little or no importance any more"(28). Fry talks about "striking similarities" between the works of Picasso and Braque in 1913-14 and the concept of eidetic reduction through intuition in the phenomenology of Husserl. However, we should comment that as was shown above, while in Cubism essence is correlated to form as an autonomous aesthetic entity, the phenomenological essence refers to the subject as a whole. The Cubist subject, approached either with the detachment of science or with intuition, is chosen first and foremost for its neutrality of meaning. Shifting from an art of induction which proceeds from experience, to an art of deduction which proceeds from a formal essence, the Cubists developed a coherent, self-sufficient and completely new aesthetic interpretation of the empirical world, which concerns form *per se*. The subject was reduced to its form, a situation that was reinforced with the introduction of the *collage*, where the real subject stands for its form(29)(Ill. 5-7).

Raynal, in 1919, searching for a philosophical justification of the reality of conception advocated by the Cubists, appealed to Plato: "the senses perceive only that which passes, the understanding that which endures"(30). Earlier than him, in 1916, Ozenfant quoted Plato's passage from Philebus on the beauty of geometrical forms(31). Among the Cubists, the work of Juan Gris seems to be closest to mathematical principles. In most of his compositions after 1911, Gris attempts a recreation of the empirical world either by means of the golden section or by strict mathematical ratios of whole numbers(Ill. 5-8). In 1921, he wrote in *L' Esprit Nouveau* (the review edited by Le Corbusier and Ozenfant):

> I work with the elements of the intellect, with the imagination. I try to make concrete that which is abstract. I proceed from the general to the particular, by which I mean that I start with an abstraction in order to arrive at a true fact. Mine is an art of synthesis, of deduction, as Raynal has said.
> I want to endow the elements I use with a new quality; starting from general types I want to construct particular individuals. I consider that the architectural element in painting is mathematics, the abstract side; I want to humanize it. Cezanne turns a bottle into a cylinder, but I begin with a cylinder and create an individual of a special type: I make a bottle -a particular bottle- out of a cylinder(32).

It was argued in Chapter Two that, as far as the relation of the Platonic *idea* to its particulars is concerned, there is no distinction between the appearance of a thing and its moral, religious or political meaning, in so far as measurement is a qualitative factor identified with beauty and virtue on a metaphysical level. Furthermore, *ideas* do not originate in the human mind. In this sense, a cylinder as an abstract geometrical entity could never be the *idea* of a bottle in the metaphysical world. Consequently, it cannot exist in the corporeal

world as well, to the extent that sensible things are related to the *idea* by Plato in the sense of either imitation or participation(33). Thus the Cubist artist, far from realizing *ideas* concentrates upon the subjective images of his own mind.

Cubism is directly related to architecture through its development by Le Corbusier into Purism. This was a new aesthetic elaborated by Ozenfant and Jeanneret, which appeared fully formulated in 1920, in an essay entitled *Le Purism(34)*. This, they hoped, would succeed Cubism. In their *Après le Cubisme* published in 1918, they criticized Cubism for its impressionism, ambiguity of form and lack of spatial definition(35). They emphasized the need for a more rigorous style instead, which would derive from a firm, scientific expression of the Cubist structure and composition. The belief of Ozenfant and Jeanneret that Purism was a higher stage of Cubism, the rejection of Cubist ambiguity, tension and sensibility of form in favour of clarity, precision and geometrical arrangement that Purism proclaimed, implied the death of Cubism as a style(36).

Form is categorized by the Purists as primary and secondary. Primary forms such as cubes, spheres, cylinders and cones are distinguished from the secondary, in so far as they have the same "plastic" meaning for everyone. For this reason, they are taken as the basis for composition which is ruled by the vertical and the horizontal. Composition is defined as a secondary elaboration on a primary formal theme. Colour is a surface factor subordinate to form(37).

The Cubist subject matter of still-lives which had been chosen for its neutrality and emptiness of symbolic meaning, was adopted by Ozenfant and Jeanneret in their Purist compositions(Ill. 5-9). They restricted it even further to the most basic *objets types*, which were seen as a bridge between the aesthetic and the practical or the autonomous and the social dimensions of art(38). The *objets types*, more than an elaboration on a primary geometrical theme, display a man-centered functionalism. The notion of *Selection Mechanique* which is discussed in Ozenfant and Jeanneret's *Le Purisme*, lies at the basis of the conception of the *objets types*. In the human organs, "One is able to ascertain a tendency towards certain identical features, responding to constant functions". Economy of effort is the factor that motivates the evolution of the organs towards the greatest harmony between form and function. In Greek antiquity to which reference to the order of the human body goes back through Vitruvius, there is no distinction between form and function, in the first place; furthermore, should there exist a dialectic relation between form and function, the motive factor could only be a purely qualitative one that would constitute a common element of both form and function. This role, which Modern Movement architecture ascribed to economy, will be discussed in detail in the next section of this chapter.

From the human body Ozenfant and Jeanneret move to certain objects such as glasses, bottles, etc., that "associate themselves with the organism and complete it". These *objets types* are, Ozenfant and Jeanneret argue, in harmony with Man. The *Pavillion de l' Esprit Nouveau*, built for the *Exposition des Artes Decoratifs* held in Paris in 1925, was a condensed expression of Purist furnishing according to the *objets types:* Thonet bentwood furniture, English club armchairs, standard Parisian cast-iron park pieces, Purist *objets tableaux*, as well as oriental rugs and South American pottery are here placed as a statement against the Art Deco movement(39)(Ill. 5-10).

Accepting the conceptual mode of representation introduced by the Cubists, Le Corbusier and Ozenfant concentrated on the ability of the intellect for general, impersonal statements. They thought that this was the true aim of art, which it shared with science: "Science and High Art have the common objective of generalisation, which is the highest ideal of the spirit."(40) They sought for a universal order common in science and art, in reason. As Ozenfant states, we are not sure that the order of our surroundings as revealed to us by reason is but a reflection of the order of our minds; nevertheless, we can be sure that our minds find an equilibrium in discovering this order in the external world(41). It is clear that order no longer derived from a metaphysical reality. It has been transferred into the human mind and ultimately justified by an appeal to a quantitative consideration of nature. In this sense, the laws of mathematics were seen as the true, absolute laws of life and therefore of science and art.

In his "*Vers une Architecture*", Le Corbusier introduces "regulating lines" as a means to achieve order in terms of the intellect:

> An inevitable element of Architecture. The necessity for order. The regulating line is a guarantee against wilfulness. It brings satisfaction to the understanding. The regulating line is a means to an end; it is not a recipe. Its choice and the modalities of expression given to it are an integral part of architectural creation(42).

Recalling Laugier's "primitive hut", Le Corbusier looks back on nature and the primitive man and finds that order by means of measurement is the basis of all human constructions. He assumes that this is "a direct function of the human instinct"(43). By instinct man imposes the order of the human scale on his creations. By taking the length of his foot or his arm, man has created the regulating unit of the whole work "to his own measure"(44). In this sense, the work is in harmony with him. Le Corbusier's emphasis on measure on the basis of the human body, an extension of Renaissance humanism though it may be, rejects the ultimate foundation of the latter on the concept of God(45). God is explicitly

replaced by instinct or nature conceived in a quantitative sense, common to art and science. Hence, such notions as measure and harmony, as used by Le Corbusier, can in no way share the metaphysical, purely qualitative meaning which Plato ascribed to the words.

As far as form as a whole is concerned, man, by instinct alone according to Le Corbusier, employs the right angle, the axis, the square, the circle. With these geometrical truths that derive from the human mind and are immediately recognizable by the human eye Le Corbusier insists, man establishes his own order against chance, irregularity and capriciousness(46).

In the same spirit, considering the relative distances between objects, Le Corbusier argues that man following "an organic inevitability" has discovered rhythms which are in clear relations with one another and apparent to the eye(47).

With the use of regulating lines, Le Corbusier insists, purification of the composition can be achieved in so far as the artist's inspiration is realized in its greatest precision as determined by mathematics. The choice of the regulating lines should be an outcome of inspiration: "There is no universal, easy to apply formula for obtaining these regulating lines; it is truly a question of inspiration, of true creation..."(48). Considering the villa at Garches for instance(Ill. 5-11), Le Corbusier explains in his *Précisions:*

> The *choice of proportions*, of full and empty, the determination of the height with respect to a length which in turn is dictated by the constraints of the terrain, all these are in the domain of lyrical creation: *such is the creation which has sprung out of a deep stock of acquired knowledge, experience, and personal creative power.* However, the mind, curious and grasping, tries to get to the heart of this unrefined product in which the destiny of the work is already permanently inscribed. This search by the mind and the improvements which result from it give rise to the establishment of a mathematical order (arithmetical or geometrical) based on the "golden number", on the interplay of the perpendicular diagonals, on arithmetical relationships involving 1, 2, 4, between the horizontal bands, etc. Thus all the elements of this facade are in harmony with another. Precision has created something final, sharp, true, unchangeable and permanent, which is the *architectural moment* (49).

The regulating lines are here means of solving the problem of unity between the various elements of an architectural composition at the aesthetic, visual level. By penetrating the work from the structure to its form they assure the rule of the human mind over the composition. The mathematical control suggested by Le Corbusier originally belonged to the work of Alberti and Palladio(50).

The source of the fundamentally mathematical order by the terms of which an architectural composition expresses truth as universal and eternal always remains for Le Corbusier the human intellect:

> We can accept that the great periods in architecture were based on a *pure system of structure.* This pure system of structure which satisfies the insatiable demands of reason brings to the mind a satisfaction, a feeling of wonder, a joy which brings forth the spiritual and purely intellectual expression of a *pure system of architectural aesthetics* (51).

In this spirit, Le Corbusier writes about the Propylea of the Acropolis:

> From what is emotion born? From a certain relationship between definite elements: cylinders, an even floor, even walls. (...) From a plastic system that spreads its effects over every part of the composition. From a unity of idea that reaches from the unity of the materials used to the unity of the general contour(52)(Ill, 5-12).

He sees the Parthenon as "a pure creation of the mind" that "gives almost the feeling of a natural growth"(53)(Ill. 5-13).

With the use of a mathematical order Le Corbusier aims at the precise realization of the artistic idea. Idea here does not bear the meaning of archetype like the Platonic *idea* but of a vision in one's mind. The Modern artist departs from the subjective images of his own mind. In this sense, an idea can never be realized as such in the corporeal world. As Jose Ortega Y Gasset remarks, there is always an absolute distance that separates an idea (either in the Modern or in the Platonic sense) from its corporeal expression. Making an idea alive as such means realizing the unreal. "In this way we do not move from the mind to the world. On the contrary, we give three-dimensional being to mere patterns, we objectify the subjective, we "worldlify" the immanent"(54). This deforming and dehumanization of reality Y Gasset argues, results in lack of communication.

The mathematical aesthetics imposed by the intellect as a means of achieving purity and precision in the realization of the artistic idea can only enhance the absurdity of the situation. In this way, the columns of the Propylea far from being the realization of abstract geometrical bodies such as the cylinders which Le Corbusier sees, are fluted, tapered and crowned with a capital, whose dimensions and formal relations always vary within the limits of their metaphysical order. Instead of being "clear and precise" creations of the mind, they are expressions of a complex culture where man explores *Logos* as the moral, political and natural order of the universe. It is obvious that the imposition of a mathematical order

upon subjective artistic visions can in no way give rise to an objective, universal work. The universality of the Classical work of art results from the metaphysical nature of the *idea* or *eidos;* and the work far from deriving from the human intellect stands by itself as an autonomous entity, obedient only to metaphysical, universal laws. An infinite number of different corporeal expressions of the same *idea* can come forth in this way but never the *idea* as such, of course.

The ultimate subjectivity of Le Corbusier's conception of mathematics as an absolute value is discussed by Colin Rowe in his "Mathematics of the Ideal Villa and other essays". Le Corbusier's incapacity to define an attitude to sensation Colin Rowe argues, confirms the private significance of the architectural truth which he imputes to mathematics: (...) cubes, spheres, cylinders, cones, and their products are demanded as objects governed by and intensifying sensuous appreciation. At one moment, architecture is "the art above all others which achieves a state of Platonic grandeur", but, at the next, it becomes clear that this state, far from being changeless and eternal, is an excitement subsidiary to the personal perception of "the masterly, correct and magnificent play of masses brought together in light". So the reader can never be clear as to what conception of rightness the world "correct" refers. Is it an idea, apart from, but infusing the object, which is "correct" (the theory of the Renaissance); or is it a visual attribute of the object itself (the theory of 1900)? A definition remains elusive(55).

Hence Le Corbusier's initial attack against Cubism in *Après le Cubism* in 1918, for its *impressionisme des formes* has no meaning, since he contributes to the Cubist experiment of rationalizing a world of personal sensation(56).

Le Corbusier's attempt to establish order as an intellectual concept affirmative of universal truths found aesthetic expression as a reaction to the past in his *Les cinq poins d' une architecture nouvelle,* published in 1926(Ill. 5-14). Le Corbusier's "five points" of architecture, despite their elaborate rationalization on the basis of function and structure, constitute an upside-down turn of the aesthetic values of the past and in this sense a kind of anti-architecture. They are what Summerson describes as "Alice in the Wonderland inversions" or Collins as "Dadaist jokes"(57). The elevation of the mass of the building off the ground on columns is an inversion of the Classical use of colonnades on a solid walling base; whereas Classical architecture used load-bearing walls, Le Corbusier introduces the free plan achieved with the separation of the load-bearing columns from the walls; the free facade is introduced as the corollary of the free plan in the vertical plane; the long horizontal sliding window that divides the facade into a sequence of solid and open strips, is suggested in contrast to the Classical closed facade whose windows do not disturb its unity; and finally, with the roof-garden, the Classical unity between architecture

and nature has been replaced by a forced peace between the human habitation and nature exploited technologically by man. The moral aesthetics of the past was definitely replaced by an intellectual aesthetics, addressed to a disinterested spectator in Kant's sense.

Another aspect of Le Corbusier's aesthetics which is also characterized by disinterestedness (as far as the essence of a thing is concerned), is his "engineer's aesthetics". In the name of a social demand for response to practical needs - though actually in favour of intellectual pleasure deriving from a world of personal sensation - Le Corbusier appeals to the machine's clarity and limpidity:

> Not in pursuit of an architectural idea, but guided simply by the necessities of an imperative demand, the tendency of the engineers of to-day is towards the generating and accusing lines of masses; they show us the way and create plastic facts, clear and limpid, giving rest to our eyes and to the mind the pleasure of geometrical forms(58)(Ill. 5-15).

Such was his admiration of the engineer's exactitude, that he wrote about the Parthenon:

> We are in the inexorable realm of the mechanical. There are no symbols attached to these forms: they provoke definite sensations(59).

and

> All this plastic machinery is realized in marble with the rigour that we have learned to apply in the machine. The impression is of naked polished steel(60)(Ill. 5-16).

Le Corbusier's attempt to derive aesthetics from function, structure or technique, taken as the intrinsic processes of Modern society, in order to give architecture an objective significance, actually reinforced the form-content duality which he aimed to abolish. It will be argued in the next section of this chapter that, in fact, it was the loss of the emotional appeal to the machine which integrated technology into life after the twenties.

The most revolutionary of the implications of Cubism, which drove the Cubist destruction of the modes of representation of the past to its limits, was the notion that painting should have no relation to the visible world at all and that it should be composed of pure abstract forms which originate in the human mind. Opposed to Purism, this concept leaves no place for any reference - direct or indirect - to the world of the senses.

Released from its last bondages to the visual world, art could derive completely from the intellect. Some of the extremist exponents of these principles believed that since

universal laws were common to art and geometry, art would reach perfection if it could be composed in terms of the intellect alone. In this way, art could gain autonomy through a universality defined by means of the intellect. The individuality of the artist would be absorbed by the universal laws from which his work would originate. The artist would play a messianic role in attaining between man and society that ideal harmony in terms of the intellect.

The destruction of natural three-dimensional space constituted the aim of De Stijl or Neo-Plasticism as expressed in the first manifesto of the movement in 1918. Its intention was to achieve "true" abstract art in contrast to the "naturalistic" abstraction of Cubism and in this way reach a balance between the universal and the individual(61). It shared with Cubism the reference to form empty of symbolic or other meaning and disregard for the individual subject. In Mondrian's words:

> In general, people have not realized that one can express our very essence through neutral constructive elements.(...) For pure art then, the subject can never be an additional value; it is the line, the color and their relations which must "bring into play the whole sensual and intelligent register of the inner life...," not the subject(62)(Ill. 5-17).

Thus the work itself is rejected in favour of the attunement of man's "inner life" with a formal abstraction of the work conceived in terms of the intellect.

The definition of space through a destructional order (destructional by means of the intellect) becomes for De Stijl the focal point of artistic creativity which concerns form *per se*. It seems to dominate the intuition of the artist much more strongly than Le Corbusier's appeal to a mathematical order as a means of realizing an artistic idea, which is finally absorbed by sensation. This is very clear in Van Doesburg's *Café l' Aubette* in Strasburg, designed in 1928, where a huge diagonal relief of coloured rectangular areas is imposed on all the surfaces of a partially orthogonal interior(Ill. 5-18). The result, consistent with De Stijl's principles, is a fragmented and distorted place, the outcome of the unification between painting and architecture(63).

The Schröder-Schräder House in Utrecht, designed by Rietvelt in 1923, represents the crystallization of De Stijl's concepts about space(Ill. 5-19). In most respects, it exemplified Van Doesburg's "Sixteen points of a Plastic Architecture" published at the time of its completion, in 1924. The eleventh point reads as though directly referring to the house:

> The new architecture is *anti-cubic*, that is to say, it does not try to freeze the different functional space cells in one closed cube. Rather it throws the

> functional space cells (as well as overhanging planes, balcony volumes, etc.) centrifugally from the core of the cube. And through this means, height, width, depth and time (i. e. an imaginary four dimensional entity) approaches a totally new plastic expression in open spaces. In this way architecture acquires a more or less floating aspect that, so to speak, works against the gravitational forces of nature(64).

In the pursuit of universality prescribed in intellectual terms, the Schröder House was a dynamic, space-exploding construction, articulated in an asymmetrical arrangement of elements; low relief coloured rectangular areas modulate "transformable" internal spaces, while the primary colours were used for accentuation, recession, etc. of the architectonic elements. In this way, the Schröder House fulfilled Van Doesburg's sixteen-point prescription, being elementary, economic and functional, unmonumental and dynamic, anti-cubic and anti-decorative(65).

Thus the aesthetic order established by De Stijl maintains and reinforces the rational, scientific conception of space introduced by Cubism. Like Cubism and Purism, it actually constitutes a self-reference which, expressed by rational means, claims liberation as much from the constraints of tradition as from the cult of individuality.

The Theosophist cosmological formulations of the mathematician M. H. Schoenmaekers virtually underlie the formative principles of De Stijl. Schoenmaekers, who coined the term "Neo-Plasticism", in his book "The New Image of the World" published in 1915, provided a cosmological justification for the limiting of the De Stijl's formal expression to orthogonal elements:

> (...) the two fundamental, complete contraries which shape our earth and all that is on the earth are: the horizontal line of power, that is the course of the earth around the sun, and the vertical, profoundly spatial movement of the rays that originate in the centre of the sun(66).

Later, in the same work, he wrote about the primary colours to which De Stijl restricted itself:

> The three principal colours are essentially, yellow, blue and red. They are the only colours existing... Yellow is the movement of the ray... Blue is the contrasting colour to yellow... As a colour, blue is the firmament, it is line, horizontality. Red is the mating of yellow and blue... Yellow radiates, blue "recedes", and red floats(67).

Elementarism, conceived as the asymmetrical articulation of architectural elements in space, was a basic principle of composition for De Stijl. Although directly derived from the Neo-Plastic cosmology as expressed by Schoenmaekers, it was greatly influenced by the Russian Elementarism which had its origins in Suprematism(68).

Kasimir Malevich, the originator of Suprematism, conceived of elemental geometrical forms as the straight line, the square and its permutations as realities of the mind standing against the world of appearances and of past art. His approach was radical. In defence of his "Black Square on a White Ground"(1915)(Ill. 5-20), he argued that it was not an empty square but on the contrary, it was full of the absence of any object(69). The empty white fields in which the Suprematist forms floated represented for Malevich cosmic infinity, the ultimate expression of which was his "White on White"(1918), a tilted white square on a white canvas.

Suprematist Elementarism, although it shares with De Stijl a cosmological significance derived from and expressed by intellectual terms, is more radical in its formal means. However, the rejection of the artistic object and the realization in art of ideas as such instead, conveys as much for Neo-Plasticism as for Suprematism their subjective basis and exposes the utopianism of their claims to universality. This subjectivism is reinforced by Malevich's appeal to a universal kind of sensation through works such as "Composition of Combined Suprematist Elements Expressing the Sensation of Metallic Sounds"(1915), or "Surpematist Composition Conveying a Feeling of Universal Space"(1916)(Ill. 5-21). In this spirit, Suprematism was founded on "the supremacy of pure sentiment translated without representation of the exterior world by means of plane geometry"(70).

The Suprematist floating space acquired an architectural form in the compositions of Constructivism. Constructivism, although opposed to the Suprematist subscription to the doctrine that art should be free of any utilitarian, social or political purposes, embraced to a certain extent Suprematist abstract Elementarism and applied it directly to social reality.

The Constructivists, consistent with the Marxist ideology, believed that aesthetic reality could enhance the physical and intellectual needs of society if it could derive from a dialectic interaction between *tectonic* and *factura;* that is to say between the conception of the work on the basis of social utilitarian needs and expedient materials on the one hand, and the realization of the natural tendencies of the materials according to the principles of technology on the other(71). In fact, however, the above requirements were flagrantly disregarded in the Constructivist designs which did not take into account the actual economic and technical means of architectonic construction in the USSR or their structural feasibility(72). With works such as Constantin Melnikov's *Projet de concours pour le*

Pavillion de l' U. R. S. S. a l' Exposition des Arts Décoratifs, Paris, 1925, or his *Projet de concours pour le Palais des Soviets, Moscou, 1931* (Ill. 5-22), or Gueorgui Kroutikov's *Ville Volante, Immeuble d' Habitations, 1928* (Ill. 5-23), Constructivism turns out to be a symbolic statement of the absolute functionalism of the machine and - in this sense, rather than for its social realism - an appeal to emotion for its aesthetic significance.

Expressionism seems to be the only movement within Modern architecture which appeals primarily to sensation evoked by means of forms and colours(73). It shares with the other manifestations of Modern art an indifference to the artistic subject *per se*. Yet, the architect expresses his own individuality in a dramatic way, while still claiming a leading cultural role in society. As the architect Adolf Behne wrote in 1918 referring to Bruno Taut's Glass Pavilion erected for the Werkbund Exhibition at Cologne in 1914(Ill. 5-24),

> It is not the crazy caprice of a poet that glass architecture will bring a new culture. *It is a fact.* New social welfare organizations, hospitals, inventions, or technical innovations and improvements - these will not *bring a new culture* - but glass architecture will...(74).

Bruno Taut's image of a glass architecture found its most impressive expression in Poelzig's Max Reinhardt theatre designed in Berlin in 1919, where the light reflected on the stalactite interior results in the dissolution of form and an infinity of space(Ill. 5-25).

However, Expressionism questioned the principles of Modern architecture which had already started to acquire a definite shape. The Expressionists showed no concern for the Modern convictions about ornament and decoration, and they doubted the aesthetics of the cube and the two-dimensional surfaces, as well as criticizing the Modern attitude towards function and construction(75).

Form was conceived by the Expressionists as a three-dimensional, plastic, restless manipulation of mass that derived from an inner creative source and was addressed to society as a whole(Ill. 5-26). Scharoun, who along with Taut stressed the creative power of the unconscious, wrote in 1919: "We must create just as the blood of our ancestors brought on waves of creativity"(76).

The organization of the *Arbeitsrat für Kunst* immediately after the war (its leading members were Behne, Gropius and Taut) argued for a new total work of art created through active participation of the people. The ultimate goal as Gropius stated it in introducing an exhibition of the movement in 1919, was "the creative idea of the Cathedral of the Future"(77), which could only be reached by a co-operation between architecture, sculpture and painting. About the same time, Behne wrote:

> The most important thing seems to me to be to construct an ideal House of God, not a denominational one, but a religious one... We must not wait until a new religiosity is upon us, for it may be waiting for us while we are waiting for it(78).

The Expressionists dreamed that through the creative power of society as a whole, the building of a Cathedral would arise in a way similar to the Middle Ages and result in the unification between art and society. This concept proves to be circular on the one hand and utopian on the other, to the extent that, as we discussed in chapter four, the principle unifying factor in Modern society is economy which is unable to create political interaction. Transparent materials and dynamic forms are far from adequate as a means to give rise to a new culture. Being a "moving exercise in irrationalism"(79), in a sometimes naive way - as the imitation of biological forms in Häring's Prinz Albrecht Garten residential project of 1924 and Scharoun's Home and Work Exhibition building at Breslau of 1924 show(Ill. 5-27) - Expressionism, although it exercised a considerable influence in determining Modern architecture, proved unable to establish itself in society as an alternative to the Modern principles it initially reacted against. Its search for light-exploiting, emotionally loaded or organic forms contributed more to the cinema and theatre than to actual building(80).

The conflict between Haring and Le Corbusier at the foundation of the *Congrès Internationaux d' Architecture Moderne* at La Sarraz in 1928, which resulted in Häring's failure to convince the Congress about his "organic" conception of architecture in confrontation with Le Corbusier's pure geometrical functionalism, denoted the end of the Expressionist dream(81). Expressionism can be seen as a counter movement in so far as it boldly exposed the subjectivity and irrationality that underlies the conception of form in Modern Movement architecture.

We have argued that the universality to which Modern Movement aesthetics aimed, turned out to be more or less subjective statements which by intention ignored the artistic subject as such. In the pursuit of a universal formal expression, an attempt to objectify the fundamentally subjective conception of a work of architecture was made either through mathematical and intellectual schemes or by means of function and structure. To this end Le Corbusier imposed mathematical relations on his artistic ideas, while the De Stijl architects attempted to identify their ideas with geometrical coloured forms; Constructivism, which intended to respond to social utilitarian needs through the expression of the technological potentialities of materials, resulted in a structural aesthetics on the one hand and an intellectual, geometrical aesthetics of Suprematist origin on the other; and, Expressionism

that sought for an emotionally charged form which would derive from the intrinsic qualities of function rather than external geometrical principles, resulted in a dramatic exposure of the Modern quest for form. The appeal to sensation hidden behind the Modern claim to universality by rational means or through a structural aesthetics as in the case of Constructivism, was driven by Expressionism to its limits.

The essential emptiness of Modern Movement architecture in which the artistic idea is depressed to the level of a formal exercise on a subjective basis, prevented it from gaining universality. Yet, it is not a formalism, since this requires a contradiction between form and essence, while in the Modern Movement the aesthetic level that has replaced essence refers to form as such.

It was the ultimate subjectivity of the Modern Movement quest in architecture that gave rise to a multiplicity of different expressions of the pursuit for establishing reason as the timeless and spaceless order of things. This subjectivity, as it comes forth from the previous discussion, was what made the need for theoretical foundations indispensable for the Movements within the Modern. Theories, of course, proved inadequate to transcend private aesthetics. "Aesthetic disinterestedness", on the one hand defines the autonomy of the aesthetic, while on the other opens the aesthetic realm to almost anything in so far as anything can be the subject of a personal aesthetic appreciation. Modern Movement architecture is here understood in this sense. The role of theory in Modern architecture will be discussed in the next, concluding chapter of the thesis, in contrast to the knowledge that underlied Classical architecture and which was a common sharing between all citizens.

5. 3. THE SOCIAL DIMENSION OF MODERN ARCHITECTURE

Modern Movement architecture is characterized by the utopian belief that, using a materialistic disguise of morality, it could play a role in forming social conditions. In the name of the social imperatives that had first been raised by the nineteenth century critics such as Pugin, Ruskin and Morris, leaders of the Modern Movement enthusiastically worked for an architecture that could be produced cheaply and become available to all. Generation by function, structure or technique, on the basis of economy, seemed to the Moderns the only way in which architecture could improve social conditions and stimulate social change.

We discussed in chapter four how economy, being purely quantitative and essentially external to the human *eidos*, is incapable of stimulating political life, *bios politicos*, in the

sense of reasoned interaction between citizens. Interaction based on economy, as is the case with the Modern political or social situation, is far from adequate to cause any change on the essential level, while any appeal to morality seems naive within the rational framework which, as we argued in Chapter Three, excludes morality by definition. Thus a social consideration of Modern Movement architecture in fact implies a universal and timeless artifact, in the quantitative sense.

Since the unity which is necessary for any kind of growth was, in Modern Movement architecture, a quantitative unity or a uniformity provided by economy, no growth was possible. Moreover, any concept of social change stimulated by architecture, which is by itself problematic, seems to be without meaning under these circumstances. The *differentia specifica* of Modern Movement architecture expressed in terms of uniformity on an economic ground, is fundamentally different from that of the Classical era where the work derived from a unity of essence on a moral, political basis. In Classical architecture, economy was not an essential factor in the choice of materials and techniques. Besides, function had a totally different meaning in Classical times, being in accord with the *eidos* of the individual work and not, as happens in Modernity, obeying a mechanistic consideration of human or other needs.

The notion of building typology which had been developed during the Enlightenment in the writings and drawings of architects and theoreticians like Blondel, Ledoux, Boulée, Durand and Dubut, is a forerunner of the Modern Movement concept of standardization in architecture and other use objects. In the treatises of the Enlightenment however, typology was based upon the consideration of form in itself rather than on functional and economic specifications(82).

The peculiar planning technique taught by Durand for instance, based on the introduction to design of graph paper, with the lines representing potential axes of walls and columns, although it was addressed to engineers supposedly for practical purposes, actually aimed at purely abstract compositions: students had to compose balanced wholes from given ideal abstract room shapes(83).

The quest for standardization was a basic principle of Modern Movement architecture and the theme of a great debate as well. This debate was an expression of the intrinsic duality of the Modern Movement between its aesthetic and its practical self. At the Cologne Werkbund Exhibition in 1914, where the split was first expessed, Muthesius declared:

> Architecture and with it the whole area of activity of the Werkbund moves towards standardization *(Typisierung)*... Only standardization can ... once again

introduce a universally valid, self-certain taste(84).

Normative forms that originate in the Enlightenment's consideration of Greek antiquity, are applied in architecture on the grounds of functional and economic qualifications. Mass industrial production based on standardization was seen as the answer to the economic needs of the new era. House building seemed to be an appropriate application of mass-production. Le Corbusier gives a justification:

> Industry, overwhelming us like a flood which rolls on towards its destined ends, has furnished us with new tools adapted to this new epoch, animated by the new spirit.
> Economic law inevitably governs our acts and our thoughts.
> The problem of the house is the problem of the epoch. The equilibrium of society to-day depends upon it. Architecture has for its first duty, in this period of renewal, that of bringing about a revision of values, a revision of the constituent elements of the house.
> Mass-production is based on analysis and experiment.
> Industry on the grand scale must occupy itself with building and establish the elements of the house on a mass-production basis(85).

Although Le Corbusier confuses the mass-production of the house as described above with his aesthetic consideration of the machine or his machine aesthetics - which as we argued earlier in this chapter are mutually exclusive - the fact is that the economic law that governs mass-production leaves little room for anything other than minimum functional and technical requirements. Moreover, far from a revision of social values on a moral basis, Le Corbusier's proposals simply facilitate the adaptation of architecture to the Modern social-political situation.

The *Maison Dom-ino* designed in 1915, is an early example of this case(Ill. 5-28). The Dom-ino system invented by Le Corbusier by 1914, was based on the principle of standardization and mass-production(86). Yet, he put the aesthetic requirements for clear and simple articulation of elements above the technical ones: for instance, although it is more economical in terms of the function of reinforced concrete to use beams in order to transmit the weight of a horizontal slab to cantilever elements, Le Corbusier omitted the beams.

In the early 1920s, Le Corbusier designed several proposals for standardized dwellings, such as the Citrohan type, "That is to say a house like a motor-car, conceived and

carried out like an omnibus or a ship's cabin"(87)(Ill. 5-29). However, elements such as the staircase of the Citrohan type of dwellings, which unfolds as a balcony along one side of the living-room either at the exterior or at the interior of the house, seems to support an anthropocentric, Cubist aesthetic allusion to the viewing of the particular space rather than any machine-functionalism or even machine-aesthetic. The unifying basis among the Citrohan dwelling types seems to lie in the aesthetic manipulation of such elements.

Proposals based on the Citrohan type were put under construction at the Pessac housing scheme at Bordeau, in 1926. As Le Corbusier comments in *Vers une Architecture:* "For the first time perhaps ..., the pressing problems of Architecture, ... were solved in a Modern spirit. Economy, sociology, aesthetics: a new solution using new methods(88)." However, his attempts to market an adaptation of the Citrohan type, the *Immeuble-Villa* unit, did not meet with success(89).

It was in the large scale urban project for the *Ville Contemporaine* in 1922(Ill. 5-30) that the social and political intentions behind Le Corbusier's Citrohan type of mass-production dwellings were, for the first time, fully expressed. The city was articulated in three areas. The outer consisted of industries and garden cities for the workers, and was sited beyond the green belt that actually defined the city. The city itself included residential blocks some ten to twelve storeys in height, while the centre was occupied by twenty-four sixty-storey office towers, the so-called Cartesian skyscrapers, which provocatively demonstrated the replacement of the religious core of the traditional city by centres of secular power(90). In this way, the form of the *Ville Contemporaine* as conceived by Le Corbusier constituted the glorification of human reason as the only absolute source of truth. However, the expression of moral issues about the right way of organizing a city in a mathematical form - for instance the area occupied by the office towers is a golden section of the total surface of the city - can in no way transcend the limits of a private mythology as we have already discussed with reference to the Modern era in general.

Architecture conceived on the basis of the abolition of the distinction between "fine" and "applied" arts was proclaimed by the Bauhaus at the time of its foundation in 1919. The word Bauhaus echoed the medieval *Bauhütte*, the masons' lodge. The return to the "craft" conception of architecture as the only way that could motivate and serve a socialist foundation of society, proved, of course, to be a rather unrealistic standpoint.

In Medieval society, as in ancient Greece, the meaning of human creation derived from the one suprahuman metaphysical principle that ordered every aspect of human life. The Bauhaus conception of craft implied unity between art in the Modern sense and technology, which - as we have already argued in this chapter - was self-contradicting and

practically unrealisable. This situation was reflected in the confrontaton between Itten's assertion of the art component of architecture as the ultimate resort of the autonomy of man's inner self and Gropius' anti-individualistic, mass-production approach - a confrontation which was resolved with Itten's resignation from the Bauhaus in 1923(91).

In fact, instead of transforming society as it initially aimed to do, the Bauhaus ideals conformed to the critical economic conditions of their times. As Oskar Schlemmer states in a letter written in 1922:

> Originally the Bauhaus was founded with visions of erecting the cathedral of socialism and the workshops were established in the manner of the cathedral building lodges. The idea of the cathedral has for the time being receded into the background and with it certain definite ideas of an artistic nature. Today we must think at the best in terms of the house, perhaps even only *think* so. (...) In the face of the economic plight, it is our task to become pioneers of simplicity, that is, to find a simple form for all life's necessities, which is at the same time respectable and genuine(92)(Ill. 5-31).

And as Gropius clarifies further,

> The teaching of craft is meant to prepare for designing for mass-production(93).

Hence the teaching of craft was understood in the sense of becoming familiar with the technical possibilities of the materials, in order that artistic conception be disciplined in favour of economic solutions in terms of mass-production. The meaning of craft here, although like the term *techné* it indicated a reasoned, consciously controlled activity, differs in essence as far as the two ends of the production of a work are concerned.

Techné Takes its departure from a metaphysical principle, the *idea* or *eidos* of the work, and is directed towards a corporeal manifestation of this principle. Furthermore, although works which derive from the same *eidos* are united in their common origin, each maintains its individuality as a result of the potentiality for an infinite number of particular expressions intrinsic in its *eidos*. Thus, each individual work refers directly to its *eidos*. The unity between works of distinct *eidé* is gained through the religious-political framework of the *polis* as a metaphysical principle and end.

Craft in the sense that it was used by the Bauhaus, in particular after 1922, starts with the concept of mass-production founded on economy and results in the designing of a product on this basis. An endless series of identical, uniform products can proceed from the same design. The individuality of a work is justifiable only on the ground of practical

requirements and has to follow the principles of mass-production. As Gropius proposes in 1924,

> Dwellings must be designed in such a way that justified individual requirements derived from the family size or the type of profession of the family head can be suitably and flexibly fulfilled. The organization must therefore aim first of all at standardizing and mass-producing not entire houses, but only their component parts which can then be assembled into various types of houses(94)(Ill. 5-32).
>
> The unity between different types of mass-production is attained within the economic social-political ground of the Modern state on a quantitative basis.

In the second half of the 1920s, the concept of mass-production becomes a prevailing consideration within the Modern Movement. For instance, for the second Werkbund Exhibition held in Stuttgart in 1927, a neighbourhood of display houses was erected by leading architects of the times including Le Corbusier, W. Gropius, H. Poelzig, P. Behrens, H. Scharoun, B. and M. Taut and Mies Van der Rohe, who had also undertaken the organization of the exhibition, and others. The buildings were free-standing, individual gestures of their architects, unified in terms of form as white prismatic volumes and in terms of social character as responses to man's practical needs on the basis of economy(95)(Ill. 5-33). A few years later, this type of building was to be identified by Hitchcock and Johnson as the International Style(96).

Mies contributed the main building, a four-storey apartment block with a steel structure, which permitted a variety of different apartment shapes and sizes(Ill. 5-34). Treating mass-production from a standpoint similar to that of Gropius, where unity is defined in terms of economy and individuality in terms of practicality, Mies wrote in 1927:

> Today the factor of economy makes rationalization and standardization imperative in rental housing. On the other hand, the increased complexity of our requirements demands flexibility. The future will have to reckon with both. For this purpose skeleton construction is the most suitable system. It makes possible rationalized building methods and allows the interior to be freely divided. If we regard kitchens and bathrooms, because of their plumbing, as a fixed core, then all other space may be partitioned by means of movable walls. This should, I believe, satisfy all normal requirements(97).

After the 30s, due to the economic crisis of the times, mass-production became the prevailing trend in architecture. By this time, the emotional appeal of the clear, geometrical

forms and the machine was actually lost. Faced with the new social reality, the Modern Movement morality of a man-centered socialist society reluctantly contributed to the a-moral and a-humanistic project of Modernity.

5. 4. THE ROLE OF THE ARCHITECT IN THE MODERN MOVEMENT

In the Modern Movement, the role of the architect in the coming-into-being of a work can be described by two notions that contradict one another: self-reference of the architect on the one hand and predominance of his social role on the other. By self-reference we mean the expression of a personal aesthetic or morality through the work, while the term social is used here to indicate the priority of the economic factor.

In both cases, the architect occupies a standpoint beyond and ahead of his own time. He constitutes an *avant-garde* in the sense that, far from founding his work on an interpretation of the past, he is obliged to invent totally new forms evaluated in terms of the future. The concept of progress intrinsic to science, becomes tangible in the never-ending rush of technology to produce the most advanced machines, and, being extended to all the fields of human production, conveys to art the message that the most unusual it is, the more advanced it must be. With industry, what is designed now, takes some considerable time to come into production. Thus the industrial designer is looking constantly to the future(98). In this respect, the architect is to a certain extent commissioned with the role of the prophet and this was the role which the architects of the Modern Movement were given by society.

The revolutionary spirit which distinguishes most of the trends within the Modern Movement originates in the notion of scientific progress. The Futurists in particular, were the first to denote the revolutionary role of art stimulated by technology. Referring to Marinetti's 1909 Futurist manifesto, Reyner Banham wrote:

> As we look back from the threshold of the space age, we see the Foundation Manifesto standing up, the furthest familiar landmark in the fog of history, the first point in which we can recognize an image of our own machine age attitudes(99).

The Futurist obsession with the speed of the machine as opposed to the "static" forms of the past was expressed at city-scale by Sant'Elia's sketches for the *Città Nuova*, in 1912-14. As was suggested by the subtitle of the exhibition by Sant'Elia's group *Nuove*

Tendenze held in Milan in the same year, where the drawings for the *Città Nuova* were shown, the *Città Nuova* represented the image of *Milano l' ano due mille* (Milano the year 2000)(100)(Ill. 5-35).

The Modern concept of progress which constitutes an essential element in the definition of the artist and of the architect in particular, did not have a counterpart in the Classical times. We have argued in the First Part of the Thesis that progress in Classical culture bears the meaning of reasoned (in a metaphysical sense) investigation of the world order on the basis of tradition. The architect could not but refer to the eternal and immutable essence and origin of the work in order to bring it into corporeal existence. In no case had he to visualize new forms which reject not only the past but the present as well in the sense that they are intended to precede their age.

The Modern Movement architects believed that by visualizing a new social reality and expressing it in architecture, they would have a leading role in bringing about social change. We discussed in the third section of the present chapter how moral issues were raised by architects as the new principles of society. Nevertheless, these issues, far from transforming society, were swept away by the economic rules of the actual social and political situation. The private character of morality in modernity made impossible the social visions of the Modern Movement architects. In most cases, this morality constituted an idealization of the economic and scientific imperatives of modernity. In this sense, we have already argued that projects such as Le Corbusier's *Ville Contemporaine* or the Bauhaus concept of the craftsman-artist cannot transcend the limits of the private.

Other architects attempted to exceed the role which was given to them by society: they dreamed of changing the social conditions which had created the need for their *avant-garde* role, by putting forth moral principles. In this case, their utopia lies not only in the fact that they tried to give universal meaning to personal moralities, but in the fact that through these moralities they express a self-denial of their role as an *avant-garde* of their own time. Bruno Taut's model for an agricultural settlement centrally situated around the governor's "House of Heaven"(101), constitutes such an anarchic conception.

The rejection of metaphysics as a unifying moral/political ground in Modern society left the question about creation problematic. Certainly the expression of economic values through a work is not a matter of creation and in this sense the artist or architect who aims at the production of works ordered by such values denies his role as an artist or architect. Economy or any other quantitative principle is inadequate by itself to give birth to any kind of form. The only thing it can certainly do is to suggest a form that satisfies it.

In Classical times, the architect was the intermediary between the metaphysical level where the work originated, and the work itself. The task of the architect was, through reasoned activity, to bring into being the work which constituted a manifestation of its *eidos* that already existed either beyond the artist (Plato) or within his soul (Aristotle). His role was minor compared to the two ends of artistic production.

With the Modern Movement, the origin of the work is situated in the domain of the aesthetic which, as was shown in Chapter Four and the second section of this chapter, far from belonging to the moral and political universal basis of the state, is by definition independent of them and derived from the subjectivity of the architect. One aspect of the utopianism of the Modern Movement lies in the fact that this subjectivism, dressed up in forms that derive from abstract geometry and mathematical relations, claims the objectivity and universality attributed to science.

In defense of the universal manner in which the abstract painter addresses the spectator, which could be equally applied to architecture, Mondrian wrote in 1937:

> (...) in his creations he *(the nonfigurative artist)* frees himself from individual sentiments and from particular impressions which he receives from the outside, and ... he breaks loose from the domination of the individual inclination within him. (...) ...the progress of science, of technique, of machinery, of life as a whole, has only made him into a living machine, capable of realizing in a pure manner the essence of art. In this way, he is in his creation sufficiently neutral, that nothing of himself or outside of him can prevent him from establishing that which is universal. Certainly his art is art for art's sake ... for the sake of the art *which is form and content at one and the same time* (102).

The subjective character of artistic production in Modernity caused a turning upside down of the traditional role of the architect. Now, in contrast to the Classical era, the architect is the major factor in the process of the coming-into-being of a work. This status of the architect is indicated by the establishment of the plan not simply as a tool but as a "generator" of the final product.

Of course, in Modernity, the lack of precedents on the same theme (which always existed in Classical architecture where each work was a representative of its *idea* or *eidos)* probably suggested that some kind of drawing would be necessary in the procedure of approaching the final result before its realization in material. However, this in no sense justifies the role of the plan as generator.

The plan is a pattern on paper and as such differs essentially from the work. Moreover, the scaled reduction usually used in the plan, instead of the actual size of the work, is an arbitrary abstraction even in quantitative terms, in so far as the structural and constructional qualities of the materials used in the work, for instance, are not always subject to simple analogic relations. In fact, with the plan as generator, the order of the abstract geometry considered as the order of the human mind is introduced as a medium through which the work is reduced to its projection on paper. As Le Corbusier expresses this,

> Architecture ... brings into play the highest faculties by its very abstraction. Architectural abstraction has this about it which is magnificently peculiar to itself, that while it is rooted in hard fact, it spiritualizes it. The naked fact is a medium for an idea only by reason of the "order" that is applied to it.
> Mass and surface are the elements by which architecture manifests itself. Mass and surface are determined by the plan. The plan is the generator(103).

Thus the meaning of the artistic idea refers to the aesthetic level of personal sensation, while the plan supports the role of the architect as creator but, at the same time, interrupts the direct relation between him and the final product. The architect brings forth the plan as a manifestation of the intellectual character of his activity in the sense in which it is prescribed by science. In this sense, the geometrical order of the plan, placed as an objective limit between the architect and the corporeal world, is seen as the filter through which a subjective architectural conception can be presented by objective means(Ill. 5-36). This indeed restricts the freedom of the architectural conception which has to conform to the Cartesian geometrical space suggested by the plan, while the plan represents the final product through a similar kind of relation. In this way, the plan has replaced the Classical notion of *eidos* as the principal element of the architectural composition. Trends within the Modern Movement such as Expressionism, which insisted on treating space as a restless three-dimensional manipulation of mass and in this way rejected the role of the plan as generator, found it difficult to survive(Ill. 5-37).

The role of the plan as generator of the work originates in the Structural Classicists' criticisms of the *Ecole des Beaux Arts* from the standpoint of the rational quest for geometrical simplicity and articulation of form on the basis of structure in the technological sense. The *Ecole des Beaux Arts*, with its insistence on treating architecture as a matter of dramatic representation in drawings, had interrupted the direct relation between drawings and architecture. The Rationalists sought to restore it in their own way. As Henri Labrouste, who taught at the *Ecole des Beaux Arts*, wrote complaining about the situation at the school in 1840, there was no relationship between the designs of his pupils and the

constructions they were supposed to represent(104). About half a century earlier, in 1789, J. B. Rondelet, attacking the *Ecole des Beaux Arts* for indulging in decoration, had proposed two new teaching posts at the school, those of planning and construction, as a balance to the old ones which he saw as dealing only with ornamentation. Eventually, he was appointed professor of stereotomy, which gave him the opportunity to teach solid geometry applied to construction(105). In 1899, the Rationalists' attempt to reduce architecture to pure abstraction, as Reyner Banham has observed, culminated in the axonometric projections of the engineer August Choisy as depicted in his *Histoire de l' Architecture* (106)(Ill. 5-38). This consideration of the design as a geometrical abstraction was handed down to the pioneers of Modern Movement architecture.

5. 5. CONCLUSIONS

Modern Movement architecture has been considered here as deriving from two, mutually exclusive principles: aesthetics, through which it could gain autonomy as art, and economy, through which it could be integrated into the socio-political framework of Modernity. Both principles emerged from the secular, rational foundation of knowledge in this era.

It has been argued that the art aspect of architecture prevailed in most of the major trends within the Modern Movement. In contrast to Classical antiquity, where the autonomy of the work derived from its essence, in the Modern Movement aesthetic autonomy was referred to form *per se*, irrespective of the essence. Moreover, this autonomy was strictly bound to the subjectivity of the artist, who, by attributing aesthetic significance to forms that sprang from the new condition of knowledge - either directly through abstract geometry or indirectly through technology and function - takes their universal appeal for granted. In other cases, social imperatives gave the dominance to practical needs on the ground of economy. The Classical *eidos* was substituted by typification on the basis of rationalization of form.

Hence, as a result of the secular origins of Modern Movement architecture, its autonomy is defined in terms of the subjectivity of the artist and is independent of any qualitative or quantitative interest in Kant's sense, while unity is defined in quantitative terms. The definition of the work without reference to the work as such, seems to be the major problem of Modern Movement architecture. This issue will engage us further in the next chapter.

PART III

CHAPTER SIX

CONCLUSIONS

6. 1. ARCHITECTURE AS A POLITICAL PROCESS

Every work of architecture has first and foremost to stand as an autonomous entity, expressing its own intrinsic character through its form. However, at the same time it should embody values which express the identity of its particular place and time. Autonomy and unity constitute the principles of existence of architecture within the historical political human environment. Nevertheless, the definition of these two notions in Modern architecture does not refer to the work *per se*. As a consequence, we confront the bizarre situation where the work stands without the work.

An exposition of this situation was undertaken in the previous chapters of this thesis through a comparison of the Modern Movement with the Classical architecture. Each was interpreted on the basis of the principles of knowledge which determine its particular political milieu.

In Classical Greece, the order of human society was the justice of the *polis*, which constituted an all-embracing, universal entity. Justice was two-fold, based on *theos* (god) and *logos* (reason). Religious knowledge representing tradition, and philosophical knowledge deriving from human reason, formulated in common the metaphysical framework within which everything in the *polis* acquired meaning and existence. The justice of the *polis* was grounded on two notions: equality and freedom. Interaction of the citizens on the basis of these principles determined their political life. Political dialectics stimulated by the autonomy of the individual became feasible only within the unity provided by the metaphysical origin of the *polis*. Within the *polis* art is "a reasoned state of capacity to make"(1), and aesthetic pleasure is achieved in terms of knowledge through *manthanein* which implies re-creation of the essence of the work by the spectator.

Classical architecture enjoyed its existence within this context. Its autonomy as well as its unity in relation to its milieu were defined on the metaphysical level through the notion of the *eidos*. Thus Classical architecture was universal and immutable within its historicity. The metaphysical status of the essence of architecture in Classical times turns our investigation about the origin of its particulars towards the interpretation of the outcome of the generic function. The corporeal existence of a work of architecture in Classical times was feasible due to mathematical relations prescribed by its essence. These relations, that were in accordance with the eternal laws of truth and morality that governed the universe, unified architecture with the other aspects of life within the *polis*. The religious and political dimensions of the *polis*, related to its past and present, expressed themselves in architecture.

In Classical architecture the work proceeds from its *eidos* in a way similar to that of reproduction by seeds. In this way, through its metaphysical foundation, architecture is integrated into life. "Life" is not understood here in the sense of simply biological life. As was discussed in Chapter One, "living" in Classical times meant "taking part in the political life of the city". In this sense, architecture within the city-state constituted a political process. The political interaction between the citizens on a moral, reasoned ground was expressed in architecture. The existence of architecture was absolutely dependent upon the notion of the *polis* as a metaphysical principle and end, and its evolution is understood in this thesis in this sense.

The case is quite different in Modernity. Political order, far from originating in any metaphysical entity, derives from the quantification of all knowledge. Supra-empirical factors focussed on economy in its general sense, motivate political interaction and thus formulate the unifying principles within modern society. Equality and freedom in the political field far from having any moral foundation operate in economic terms. In art, the autonomy of the aesthetic refers to its emancipation as much from morality as from reason, and in this sense from both the divine and the empirical world. It does not concern the work *per se*, but is defined in terms of the attitude of "aesthetic disinterestedness" displayed by the human subject. As a consequence, anything - even everyday objects for instance - can be considered as art, while art criticism is insufficient to come up with a generally valid judgement.

In the architecture of the Modern Movement neither autonomy nor unity refer to the work as such. If autonomy in the Classical era was manifested through the potentiality of a work of architecture for an infinite number of distinct corporeal expressions prescribed by the *eidos*, in Modern Movement architecture it refers to a unique work considered as an aesthetic entity independent of the essence. Autonomy is now depressed to the level of

form and correlated to the freedom of the personal visions of the artist. Furthermore, the subjectivity implied claims universality through a rational clothing in mathematics, function or structure.

Modern Movement architecture is ultimately integrated into society through the principles of economy which determine political interaction in Modernity. Unity here refers to the uniformity imposed upon architecture by economy. Of course, as it emerges from the Modern conception of the aesthetic, a work of architecture made strictly on the basis of the quantitative principles of modernity is not prevented from being an object of aesthetic disinterestedness(2). This is what the Russian Constructivists, for instance, intended. What they actually did however was essentially different: they viewed the machine aesthetically. As a consequence, their work, stimulated by aesthetic visions of the machine, bears the meaning of a subjective symbolism rather than any universal aesthetic.

Modern Movement architecture, essentially empty and formally dependent upon the architect's subjective visions, cannot claim that it is a carrier of life by its own merits. However, it participates in political life in the sense suggested by the supra-empirical imperatives of Modernity. Stressing the fact that the criteria of evaluation of architecture in Modernity are absolutely relevant, one may paraphrase T. S. Eliot's words from his preface to the "Sacred Wood": "I prefer the *Classical architecture* to that of the *Modern Movement*, (...), because it seems to me to illustrate a saner attitude towards the mystery of life"(3).

6. 2. ARCHITECTONIC CREATION AS INTELLECTUAL OPERATION

6. 2. 1. THE SOURCES AND MEANS OF ARCHITECTONIC CREATION IN RELATION TO THE ROLE OF THE ARCHITECT IN CLASSICAL AND MODERN SOCIETY

The autonomy of architecture in the Modern Movement is strictly related to the freedom of the architect. This freedom which essentially refers to the expression of a subjective aesthetic or morality, prevents architecture from becoming an integral part of its society. Since this is more or less an unavoidable situation in Modernity, theory was introduced by the Modern Movement in order to support or complement the work in its fundamental function of communicating within its environment.

In Classical times, knowledge about the work derives from the metaphysical principles of reason and morality of the *polis*. The Classical architect is to bring into being a universal and unchangeable entity, the *eidos* of the particular work. He first "knows" what the work is and then he approaches it cognitively through mastering the rules of his *techne*. The personality of the architect is appreciated to the extent that he is the medium through which an *eidos* understood by everybody within the *polis* acquires corporeal existence. The treatises written by Classical architects had more or less a technical character and differ substantially from the new type of treatise introduced in the Renaissance in order to support the conception of art as an intellectual activity. The principles of art are known to, and accepted by, everyone within the *polis* without needing to be expressed in written texts.

In Modern society, the principles of knowledge are conditioned by the exploration of the faculties of the human mind in terms of science. The Modern architect, convinced that reason could offer a foundation to itself on a universal scale and that his work following rational principles could stand by itself as an objective artifact, initially rejected all the literature which had been accumulated since the Renaissance, mainly within the institution of the academies. However, the utopian nature of the Moderns' belief in reason was exposed through their work. In order to secure their individuality threatened by the quantitative principles which actually were brought forth by Modernity, they turn to ultimately subjective intellectual schemes and private moralities.

This subjective world could not have any appeal to its social milieu, unless literature was re-introduced as a means to support architectural creation. Thus, every trend within Modern Movement architecture could not feel comfortable unless supported by some kind of theoretical explanation. Texts like the First Manifesto of De Stijl, 1918, or the Proclamation of the Weimar Bauhaus, 1919, or Le Corbusier's *Vers une Architecture*, 1923, show the enthusiasm of the Moderns to convince the public of the objective value of their work, while exposing their doubt as to whether a work apparently conceived as an expression of the social principles of its time could actually stand by itself as such.

We have extensively discussed in this thesis why it is that a work of architecture in the Modern Movement cannot stand by itself as an autonomous entity because it is not *made* as such. The ontological question about "What the work is" has been retired in favour of "What the architect visualizes". Since the foundational cause behind the work's existence is subjective and arbitrary, the articulation of this cause in terms of a theory could not make much difference to the public's understanding. Reason, confined within its limits in the modern sense, cannot convince anyone that private aesthetics or moral principles are objective and true. Thus through a theory, the architect projects into the world a

subjective reality where truth is trapped within the closed system theory-artifact(4). In so doing, it presented Modern Movement architecture as reduced to mere "functional" oversimplified geometry.

A contemporary critic, Tom Wolfe, in an article entitled "The Painted Word", 1975, argues that the mutation of art into text constitutes a continuously aggravating situation since the Modern Movement. We will borrow a few lines from this text referring to painting:

> All of the major Modern movements except for De Stijl, Dada, Constructivism, and Surrealism began before the first world war, and yet they all *seem* to come out of the 1920s. Why? Because it was in the 1920s that modern art achieved social chic in Paris, London, Berlin, and New York. Smart people talked about it, wrote about it, enthused over it, and borrowed from it(5).

Compared to architecture, painting has the privilege of belonging to the sphere of the aesthetic alone and thus being free of any practical intentions. As with architecture, the aesthetic self of Modern painting is beyond the reach of any rational explanation. Apparently, writing about painting mainly serves the purpose of making a certain group or an individual artist more widely known and broadens the public to which their works are addressed. However, it seems that even in the case where a text is an integral part of a painting and in this sense suggests a different kind of art, we face the paradoxical situation where on the one hand painting by itself seeks for remoteness from the public's understanding, while, on the other hand, it uses text as a means of communication. Thus painting becomes a medium through which a certain category of "cultivated" people distinguish themselves from the rest of society and text is used to reinforce this elitism. In this way, the subjectivism of the artist comes out stronger than ever before.

Nevertheless, immediately after the twenties, theory in architecture played the opposite role. The practical purpose architecture has to serve, brought forth by the economic imperatives of the thirties, held back Modern architecture from a similar self-indulgement to that of painting or at least reduced it in scale. Architectural theory had an appeal to the public only after the twenties, when it urged Modern architecture to put aside the formal investigations of the first decades of the century and concentrate upon the social demands for economy on the basis of functional and technical requirements.

The use of the term Functionalism in order to label Modern Movement architecture, first appeared in Alberto Sartoris' book *Gli Elementi dell' architettura Funzionale*, published in Milan in 1932. The word *Functional* was proposed to Sartoris by Le Corbusier

himself instead of the original *Rational* (6). With writers like Sigfried Giedion, the term Functionalism was established, while the presentation of the architecture of the twenties was limited to the work of some leading architects like Gropius, Mies van der Rohe, Le Corbusier and Aalto(7). Although misleading as Reyner Banham argues, the term Functionalism seems to represent not so much the arbitrariness of some writers as the socially approvable face of Modern Movement architecture. In this way theory initially introduced to support the autonomy of Modern Movement architecture turns out to subsume this autonomy to functionalist reduction.

Thus while in Classical times the work is integrated into society through the metaphysical principles of knowledge of the *polis*, in Modernity reason can of course produce secure quantitative theories on a supra-empirical basis but is inadequete to provide objective support to subjective aesthetics or moralities. In this sense, the value of a theory can ultimately only be judged in pragmatic terms through the response of the public to the architecture proposed by that theory.

6. 2. 2. LIMITS AND PROSPECTS OF A CRITIQUE IN ARCHITECTURE

Criticism is a new condition for art, which originated in the emancipation of human knowledge from metaphysics in the eighteenth century. An essential characteristic of criticism is that it is always posterior to the genesis of a work either as a corporeal entity or as a concept in the mind of the architect. It cannot affect creation as such, it can only propose standards of evaluation for a work before or after its realization in matter. In this sense, any theory, as far as it is based on critical statements cannot intervene in creation *per se*. However, in so far as criticism of a certain work can affect the next, an interplay between criticism and the work is suggested.

In Classical times, knowledge about art referred to the work as such on a metaphysical basis; it was shared among all members of the *polis*. The principles behind a work were absolute and universal, and as such they formed the common ground upon which any criticism of a work would acquire meaning within the city state. However, in so far as that meaning was more or less the same for everybody, criticism was, generally speaking, unnecessary, and practically did not exist.

In Modernity, the domain of the aesthetic, detached from morality and reason, claims absolute autonomy. Nevertheless, this autonomy is defined in terms of the aesthetic attitude of the human subject.

Within the Modern Movement criticism aims to supply the notion of the aesthetic with some kind of objectivity. However, since the fields of reason and aesthetics are essentially distinct in Modernity, every basic principle upon which a critical judgement is built is subjective and in this sense arbitrary. The assertion, for instance, by Le Corbusier that the primary geometrical forms "as pure creations of the mind" are beautiful, cannot transcend the limits of intersubjectivity.

In this respect, the evaluation of any work of art becomes a relative, open-ended activity. Anything can be considered as art to the extent that it is justifiable through a coherent argument on the basis of intersubjective principles. In these terms, an infinity of "legitimate" theories can be produced. However, as we previously discussed, a level on which criticism about Modern Movement architecture proved convincing was certainly that in favour of the supra-empirical quantitative unifying factors of the modern political field. The Modern Movement gained world-wide objectivity only after its reduction to pure functionalism.

The fact that contemporary political reality remains faithful to the imperatives of Modernity, brings architecture to an awkward situation: To follow this reality rather implies to deny its aesthetic self. In this sense it has no meaning to talk about architecture at all. On the other hand, as comes out from the discussion in this thesis, a unity between the aesthetic and the practical self of architecture presupposes that the artist would operate within a unified moral and reasoned framework. Unity between morality and reason in no way indicates here the moralization of rational concepts which the Moderns attempted: as Le Corbusier did in his project for the *Ville Contemporaine*, for instance. It is defined on the metaphysical level and implies reasoned dialogue on the ground of morality. If a critique developed on such a basis has an appeal in any way, it has managed to go beyond the boundaries of the subjective and constitutes a political statement. Towards achieving such an objective, the role of the architect as a critic primarily of his own work is imperative as never before.

NOTES AND REFERENCES

CHAPTER ONE

THE IDEA OF DEMOCRACY AND THE GENESIS OF THE *POLIS* AS A METAPHYSICAL ENTITY

1. G. Glotz, *La cite greque*, editions Albin Michel, Paris, 1928, p. 21; Roland Martin, *L' Urbanisme dans la Grece antique*, ed. Picard, Paris, 1974 (2nd ed.), p. 13.

2. Homer, The Iliad, Z96, 305, H345, The Loeb Classical Library.

3. Op. cit., Glotz, p. 21; R. E. Wycherley, How the Greeks built Cities, W. W. Norton and Co., New York, 1962, p. 5.

4. Ibid., p. 21.

5. Aristotle, The Politics, I,2 (transl. H. Rackham), Loeb Classical Library, William Heinemann Ltd, London, 1932.

6. E. R. Dodds, The Ancient Concept of Progress, At the Clarendon Press, Oxford, 1973, pp. 14-6.

7. V. Ehrenberg in his article "When did the Polis rise", Journal of Hellenic Studies, 1937, Vol. 57, pp. 147-59, argues that the "true origin" of the *polis* lies in the beginning of the eighth century; C. G. Starr in the article "The early Greek City-State", *La Parola del Passato*, 1957, No. 12, suggests that the *polis* was "a fairly sudden development toward the end of the eighth century B.C."

8. Werner Jaeger, Paideia: the Ideals of Greek Culture, Basil Blackwell, Oxford, 3rd Engl. ed. 1946 (1st German ed. 1933), pp. 99-114; also Glotz, p. 15. An opposite opinion is expressed by Fustel de Coulanges, The Ancient City, Anchor ed., 1956, who insists that "the same religion" formed the ancient family organization and the ancient city-state, and that every demand for individual liberty cannot be considered but a revolution against the gods. Glotz, criticizing him in: op. cit., pp. 13-5, states that the "geometrical" form of evolution from the family to the city-state adopted by de Coulanges, cannot be applied to living creatures; he finds his approach to individualism consistent with the theory of the liberal school of the 19th century which distinguishes an absolute contradiction between the omnipotence of the city and the freedom of the individual.

9. Ibid., Jaeger, p. 99; ibid., Glotz, p. 26.

10. Ibid., Jaeger, p. 99-100; ibid., Glotz, p. 26-8.

11. Ibid., Jaeger, p. 101; ibid., Glotz, p. 26-8.

12. Ibid., Jaeger, p. 102.

13. Ibid., p. 117.

14. Ibid., p. 102.

15. Ibid., p. 102-3.

16. Gregory Vlastos, "Equality and Justice in early Greek Cosmologies", Classical Philology, 1947, Vol. 42.

17. Ibid., p. 174.

18. Ibid., p. 175.

19. Gregory Vlastos, "Solonian Justice", Classical Philology, 1946, Vol. 41.

20. Ibid., pp. 65-8.

21. Diels-Kranz, *Fragmente der Vorsokratiker*, Berlin, 1934-7, 5th ed., cited in: Vlastos, 1946, p. 65.

22. Ibid., Vlastos, 1946, p. 66.

23. Ibid., pp. 66-9.

24. Op. cit., Glotz, p. 149.

25. Ibid., p. 154; Thucydides, The funeral Oration of Pericles (transl. Th. Hobbes), Oxford Univ. Press, 1929, pp. 37-45.

26. Op. cit., Aristotle, III, XV, 3.

27. Op. cit., Glotz, pp. 18, 147-8.

28. Ibid., p. 164.

29. Ibid., pp. 165-6.

30. Op. cit., Aristotle, III, XI, 4-5.

31. Op. cit., Diels-Kranz, Heraclitus frag. 44; cited in Jaeger, p. 110.

32. Plato, Crito, Oxford, At the Clarendon Press, (ed. and notes by John Burnet).

33. Op. cit., Jaeger, p. 94.

34. Op. cit., Vlastos, 1946, pp. 73-5.

35. Ibid., pp. 75-8; as Vlastos clarifies in p. 82, Solon uses *dike* when he thinks of destiny as an intelligible principle of moral reparation, and *moira* when he thinks of the inscrutability of destiny and the insecurity of man's endeavour.

36. Op. cit., Glotz, pp. 88, 134-6.

37. Op. cit., Jaeger, p. 111.

38. Hannah Arendt, The Human Condition, The University of Chicago Press, 1958, p. 23.

39. Ibid., p. 24.

40. Ibid., p. 31.

41. Ibid., pp. 28-9.

42. Aristotle, Nicomachean Ethics, 1177b31 (transl. H. Rackham), The Loeb Classical Library, Harvard Univ. Press, Cambridge, Massachusetts, 1947 (c/1926).

43. Liddell and Scott's, An Intermediate Greek-English Lexicon, Oxford, At the Clarendon Press, 1888, p. 654.

44. Op. cit., Glotz, p. 162f.

45. Op. cit., Jaeger, p. 113.

46. Op. cit., Diels-Kranz, Xenophanes' frag. 34; cited in E. R. Dodds, The Greeks and the Irrational, Univ. of California Press, 1951, p. 181.

47. Aristotle, Metaphysics, 982a 14-7 (intr. and comment. by W. D. Ross), Oxford Univ. Press, 1924.

48. Op. cit., Dodds, 1951, p. 183.

49. Plato, Protagoras 353D, E (transl. W. R. M. Lamb), The Loeb Classical Library, William Heinemann Ltd, London, 1952 (c/1924).

50. Ibid., 351B-358.

51. Ibid., 352C.

52. Ibid., 325C, D.

53. Op. cit., Dodds, 1951, p. 184.

54. Plato, Protagoras, 352B, C.

55. Plato, Laws, 663B (transl. R. G. Bury), The Loeb Classical Library, William Heinemann Ltd, London, 1942 (c/1926).

56. Ibid., 644A.

57. Op. cit., Dodds, 1951, p. 209.

CHAPTER TWO

THE CLASSICAL TEMPLE AS A SYMBOL OF THE SPIRIT OF THE *POLIS*

1. W. B. Dinsmoor, The Architecture of Ancient Greece, B. T. Batsford Ltd., London, 1950 (c/1902), p. 38.

2. Roland Martin, *L' Urbanisme dans la Grece Antique, Paris, Editions A. et J. Picard et Cie,* 1974 (c/1956), p. 253; R. E. Wycherley, How the Greeks Built Cities, W. W. Norton and Company, New York 1976 (c/1962), p. 91.

3. See for instance: A. W. Lawrence, Greek Architecture, The Pelican History of Art, 1973 (c/1957), p. 84.

4. Walter Burkert, Greek Religion (Archaic and Classical) (tr. J. Raffan), Basil Blackwell Ltd, Oxford, 1985 (c/German ed. 1977), pp. 49-50.

5. See Chapter One.

6. "Political" is used here to indicate the moral, philosophical and political attitude of the citizens in the realm of the *polis*.

7. Op. cit., Lawrence, pp. 84.

8. Flat roofing tiles have been found in some Early Bronze age buildings, but, most probably, that was not the rule. See J. J. Coulton, Greek Architects at Work, Granada, London, 1977, p. 35.

9. Ibid., pp. 30-35. Continuity of the oral tradition and the rediscovery of the places referred to in the myths, with the re-development of navigation and colonization led to the identification of eighth century Greece with its heroic past after three Dark centuries. See Stefan Hiller's article "Possible Historical Reasons for the Rediscovery of the Mycenaean Past in the Age of Homer", in the: The Greek Renaissance of the Eighth Century B. C.: Tradition and Innovation, Stockholm 1983, pp. 9-14.

10. Op. cit., Coulton, p. 31.

11. Martin Heidegger, "The Origin of the Work of Art", an essay that appears in: Martin Heidegger, Poetry, Language, Thought, Harper, New York, 1971, p. 57, pp. 77-8.

12. Ibid., p. 78.

13. Aristotle, Metaphysics, 987b1-10, 999a26-29, 1039b33-1040a8; transl. H. Tredennick, The Loeb Classical Library, Harvard University Press, 1933.

14. Ibid., p. 43, n. f. See a discussion of the two words in: A. E. Taylor, *Varia Socratica* (St. Andrews University Publications 9) Oxford, 1911, pp. 178-267; and C. M. Gillespie, Classical Quarterly, Vol. VI, 1912, pp. 179-203.

15. Op. cit., Aristotle, 991b4, 999b5-10, 1034a9-b19.

16. Ibid., 987b7-11.

17. Plato, Symposium, 207d-208b; transl. B. Jowett, The Dialogues of Plato, Oxford, At the Clarendon Press, 1925.

18. The phrase is quoted from Heidegger, op. cit., p. 18, where it has been used to denote the never ending strife of thought to approach the origin and essence of art.

19. Op. cit., Aristotle, 991a21ff.

20. Aristotle, Parts of Animals, 640c17-19; transl. W. Ogle, cited in: A. Hofstadter and R. Kuhns eds, Philosophies of Art and Beauty (Selected readings in Aesthetics from Plato to Heidegger), The University of Chicago Press, 1964.

21. Op. cit., Aristotle, Metaphysics, 1034a23-b2.

22. Ibid., 1033b17-20.

23. Ibid., 1029a29.

24. Franz Brentano, Aristotle and his World View (transl. R. George and R. M. Chisholm) University of California Press, Berkeley, 1978, p. 45.

25. Op. cit., Aristotle, Metaphysics, 10172b20.

26. This ontological position is basic in the hermeneutic philosophy. A thorough and elaborate exposition of the nature of hermeneutic knowledge is undertaken by Gadamer in: Truth and Method, Sheed and Wand Ltd, London, 1975 (transl. from: Wahrheit und Methode, J. C. B. Mohr, Tubingen, 1960).

27. Francis Sparshott, The Theory of Arts, Princeton University Press, New Jersey, 1982, p. 246.

28. Op. cit., Gadamer, p. 246.

29. Ibid., pp. XXVI, 269.

30. Ibid., p. 255.

31. Ibid., pp. 252-3, 344.

32. Op. cit., Plato, Symposium.

33. Op. cit., Aristotle, Metaphysics, 987b10.

34. Ibid., 1032b1.

35. See I. Sykoutris, Aristotelous Peri Poietices, Estia, Athena 1936, pp. 92*-3*.

36. Ibid., 1072a19ff.

37. See the discussion about the evolution of the Classical temple in section 2. 3. 2. 2.

38. See the introduction by H. Tredennick in: op. cit., Aristotle, Metaphysics, pp. xxii-xxiv.

39. Plato, Philebus, 64e (transl. H. N. Fowler), cited in: W. Tatarkiewicz, History of Aesthetics, Mouton, The Hague, 1970, Vol. I, p. 128.

40. Plato, Statesman, 283b-285b (transl. H. N. Fowler), The Loeb Classical Library, William Heinemann Ltd, London, 1952 (c/1939).

41. Op. cit., Aristotle, Metaphysics, 990a30.

42. See Aristotle's objection, in: op. cit., Metaphysics, 987b30-988a5.

43. Ibid., 987b15.

44. Ibid., 1076b10ff.

45. Ibid., 1078a30.

46. Op. cit., Aristotle, Poetics, 1459b5.

47. Ibid., 1451b15-1451a19; see also a discussion in: op. cit., Tatarkiewicz, p. 152.

48. Ibid., Aristotle, 1451a7.

49. Op. cit., Coulton, p. 16.

50. A. W. Lawrence, Greek Architecture, Penguin Books, England 1973 (c/1957), p. 92.

51. Ibid., p. 92.

52. Op. cit., Coulton, p. 36.

53. Op. cit., Lawrence, pp. 96-7.

54. Op. cit., Coulton, p. 39.

55. Op. cit., Lawrence, p. 115.

56. Op. cit., Coulton p. 43.

57. Op. cit., Dinsmoor, p. 53.

58. Ibid., p. 54.

59. Ibid., pp. 72-3.

60. Op. cit., Lawrence, p. 113.

61. Op. cit., Coulton, p. 43.

62. Ibid., p. 43.

63. Op. cit., Lawrence, p. 114.

64. Op. cit., Dinsmoor, p. 128.

65. Op. cit., Coulton, p. 111.

66. Op. cit., Dinsmoor, p. 105.

67. Ibid., p. 106.

68. Ibid., pp. 41, 71.

69. Ibid., pp. 151-2.

70. Op. cit., Lawrence, pp. 156-8.

71. B. Fletcher, A History of Architecture, Univ. of London, The Athlone Press, 1975 (18th revised edition by J. C. Palmes), p. 216.

72. Op. cit., Lawrence, p. 158.

73. Op. cit., Fletcher, p. 216.

74. Ibid., p. 221.

75. Op. cit., Lawrence, pp. 102-3; Coulton, pp. 105-7.

76. Ibid., Coulton, pp. 101-5.

77. Ibid., p. 5.

78. Plato, Ion, 532b-536b (transl. W. R. M. Lamb), Thr Loeb Classical Library, William Heinemann Ltd, london, 1925.

79. Op. cit., Gadamer, p. 111.

80. Op. cit., Plato, Ion, 534.

81. Plato, The Republic, book X, 596 (transl. P. Shorey), The Loeb Classical Library, William Heinemann Ltd, London, 1930-35.

82. Plato, Laws, 669df; see R. C. Lodge's article "Plato and Progress", in: Philosophical Review, 1946, p. 665.

83. E. R. Dodds, The Ancient concept of Progress, Oxford, Clarendon Press, 1973, p. 15.

84. Aristotle, Nicomachean Ethics, 1140a7, transl. W. D. Ross, cited in: op. cit., Hofstadter and Kuhns eds.

85. Op. cit., Tatarkiewicz, p. 140.

86. Op. cit., Aristotle, Metaphysics, 1032b1.

87. Op. cit., Aristotle, Parts of Animals, 640c30.

88. Op. cit., I. Sykoutris, pp. 93*-6*.

89. Op. cit., Aristotle, Metaphysics, 1034a23.

90. W. Jaeger, Paideia: the Ideals of Greek Culture (transl. G. Highet), Oxford University Press, Oxford, 1967 (c/1939), Vol. I, p. 117. For the relation of the individual to the social and the universal, see the discussion in Chapter One.

91. The Construction Plans for the Temple of Apollo at Didyma, article in: Scientific American, December 1985, p. 114.

92. Wladyslaw Tatarkiewicz, History of Aesthetics, Mouton, 1970, Vol. I, p. 48.

93. Vitruvius, The Ten Books on Architecture (tr. by Morris Hucky Morgan), Dover, New York, 1960 (c/1914), Book VII, Introduction.

94. Ibid., Book IV, Chapter III.

95. During the Hellenistic period, Doric order was avoided in temples, due to some "disadvantages" ascribed to it. As such disadvantages were considered: 1) the inflexibility of the treatment of the freeze, 2) the absence of base to give protection to the columns, 3) the heaviness of the columns; Harold Bruce Allsopp, A History of Classical Architecture, Pitman and Sons Ltd, London, 1965, pp. 73-4.

96. Op. cit., Coulton, p. 54.

97. Ibid., p. 55.

98. Ibid., p. 56.

99. Op. cit., Scientific American, pp. 114-22.

100. Op. cit., Gadamer, p. 278. Sykoutris expresses his reservations about the independence of morality from metaphysics in Aristotle's philosophy; op. cit., Sykoutris, p. 84*.

101. Op. cit., Tatarkiewicz, p. 123.

102. The moral and educational aim of art is discussed by Plato mainly in the Laws and the Republic.

103. Plato, Parmenides, 133b-135c (tr. H. N. Fowler), The Loeb Classical Library, William Heinemann Ltd, London, 1939 (c/1926); Timeaus, 29bf,47ef (tr. R. G. Bury), The Loeb Classical Library, William Heinemann Ltd, London, 1961 (c/1929); see: op. cit., Lodge, pp. 651-667.

104. Plato, Republic, 424a, 425a, Laws, 770.

105. Op. cit., Lodge, p. 657, n. 23.

106. Plato, Gorgias, 514 (tr. W. R. M. Lamb), The Loeb Classical Library, William Heinemann Ltd, London, 1961 (c/1925); for a discussion see M. Andronikos, *O Platon ke e Techné, Nefelé, Athena*, 1984, pp. 115-6.

107. Aristotle, Politics, 1339 (transl. B. Jowett), in: op. cit., Hofstadter and Kuhns eds.

108. Op. cit., Sykoutris, 86*.

109. Aristotle, Poetics, 1461b (transl. I. Bywater), in: op. cit., Art and Beauty.

110. Ibid., 1461b10.

111. Op. cit., Aristotle, Poetics, 1460b23-1461a10; Sykoutris, pp. 88*-9*.

112. Ibid., Aristotle, 1462a6, 1462b10, 1460b23; Sykoutris, pp. 77*, 81*.

113. Ibid., Aristotle, 1450a6, 1450a15ff.

114. Ibid., 1451a36.

115. Op. cit., Plato, Laws, 654a; Aristotle, Poetics, 1448b, Politics, 1340a12, Ethics, 1173b11.

116. Ibid., Aristotle, Poetics, 1450b.

117. Ibid., 1448b, Sykoutris, pp. 80*-2*.

118. Op. cit., Walter Burkert, pp. 119-125.

119. The Greek Renaissance of the 8th c. B.C.: Tradition and Innovation, Stockholm, 1983; proceedings of a Symposium about the relation of the Archaic Greek culture to its Prehistoric past, on the basis of archaeological findings.

120. Bruno Snell, The Discovery of the Mind in Greek Philosophy and Literature, Dover Publications, Inc., New York, 1982 (c/1953, 1896 German ed.), p. 28.

121. Op. cit., Burkert, p. 182.

122. Ibid., p. 47.

123. B. C. Dietrich, Tradition in Greek Religion, Published in: op. cit., The Greek Renaissance of the 8th c. B.C.: Tradition and Innovation, p. 84.

124. Op. cit., Burkert, p. 52.

125. Op. cit., Dietrich, p. 86.

126. Martin Nilsson, The Mycenaean Origin of Greek Mythology, University of California Press, Berkeley, 1972 (c/1932), pp. 35-186.

127. Op. cit., Burkert, p. 15.

128. Claude Rolley, *Les Grands Sanctuaires Panhelleniques*, published in: op. cit., The Greek Renaissance of the 8th c. B.C.: Tradition and Innovation, p. 114.

129. Ibid., pp. 110-4.

130. See the discussion about the Evolution of the Classical Temple, in Chapter Two.

131. E. R. Dodds, The Greeks and the Irrational, University of California Press, Berkeley, 1951, pp. 33-4.

132. Martin Nilsson, The Minoan-Mycenaean Religion, Lund, 1950(2nd ed.), p. 262-288.

133. Ibid., Chapter XI, Epiphanies of gods in human shape, pp. 341-443. See also: op. cit., G. Murray, p. 64; E. R. Dodds, The Greeks and the Irrational, Univ. of California Press, pp. 14-5.

134. Op. cit., Burkert, pp. 119-20; see also the discussion in Chapter Two.

135. Ibid., Burkert, p. 121.

136. R. H. Lowie, Primitive Religion, New York, 1924, p. 267.

137. Herodotus, Historiae, 2.53 (tr. A. D. Godley), The Loeb Classical Library, William Heinemenn Ltd, London, 1921-24; op. cit., Murray, p. 64; op. cit., Dodds, p. 15.

138. Op. cit., Nilsson, 1950, p. 491f; op. cit., Dodds, p. 15.

139. Op. cit., Snell.

140. Op. cit., Burkert, p. 50.

141. Ibid., p. 89.

142. See for instance the opinion expressed by B. Bergquist in the discussion on Religion and Sanctuaries, included in: op. cit., The Greek Renaissance of the 8th c. B.C.: Tradition and Innovation, pp. 120-2.

143. Op. cit., Nilsson, 1972, pp. 230-245.

144. Homer, The Iliad, II. 206 (transl. A. T. Murray), taken from: The Loeb Classical Library, Heinemann, Harvard, 1924.

145. Werner Jaeger, Paideia: the Ideals of Greek Culture (transl. G. Highet), Oxford University Press, Oxford, 1945; Vol. I, p. 103.

146. Op. cit., Homer, I. 221, 426, 533, 606; IV. 2.

147. Op. cit., Dodds, 1973.

148. Ibid., p. 151.

149. See for instance: op. cit., Burkert, pp. 84-95.

150. Jean Pierre Vernant, *Mythos ke Skepsé sten Archaea Ellada* (Myth and thought in Ancient Greece) (transl. from the French by S. Georgoude), Egnatia; see in particular Chapters Three(From Mythos to Logos) and Seven(The Organization of Place).

151. Op. cit., Dodds, Agamemnon's Apology, pp. 1-27.

152. Op. cit., Rohde, pp. 30-1.

153. Hesiod, 115 (tr. H. G. Evelyn-White), The Loeb Classical Library, Harvard University Press, Cambridge, Massachusetts, 1914.

154. Op. cit., Nietzsche, 1976, p. 449.

155. Op. cit., Nilsson, 1950, pp. 262-288.

156. Most probably, she was of a Minoan origin; see: op. cit., Nilsson, p. 503.

157. Martin Nilsson, *Elleniké Laiké Threskea* (Greek Popular Religion), (transl. by I. Th. Kakridis), Athens, 1979, pp. 13-4.

158. In the sense that "that which is drawn apart becomes one with itself". H. Diels, Die Fragmente der Vorsokratiker, Berlin: W. Kranz, 6th edn, 1951, fr. 51.

159. E. T. Vermeule, Greece in the Bronze Age, Chicago, 1964, p. 270.

160. Op. cit., Nilsson, 1950, p. 399.

161. Most contemporary interpretations about the anthropomorphism of the columns are based on: Vitruvius, The Ten Books on Architecture (tr. M. H. Morgan), Dover Publ., New York, 1960, pp. 103-4. According to him the Doric column exhibits "the proportions, strength and beauty of the body of a man"(p. 103), while the Ionic "the delicacy, adornment and proportions characteristic of women"(p. 104).

162. Op. cit., Nilsson, 1950, p. 399.

163. Ibid., pp. 236-261.

164. Ibid., pp. 257-8.

165. "When he had said this, Phoebus Apollo laid out all the foundations throughout, wide and very long; (...) And the countless tribes of men built the whole temple of wrought stones, to be sung of for ever." Hesiod, "Homeric Hymn to Pythian Apollo", incl. in: the Homeric Hymns and Homerica, Loeb Classical Library, Great Britain, 1914, p. 345.

166. Mircea Eliade, Patterns in Comparative Religion (tr. R. Sheed), London, 1958, p. 25.

167. Evidence only from myths; see: op. cit., Burkert, p. 148.

168. Pausanias, Description of Greece, X, 16, 2 (tr. W. H. S. Jones), The Loeb Classical Library, William Heinemann Ltd, London, 1918-35; discussion in: Jane Harrison, Themis, Merlin Press, London, i977 (c/1963), p. 397.

169. E. Rohde and J. Harrison think that the omphalos originally represented the stone placed on a tomb. See Erwin Rohde, Psyche (transl. W. B. Hillis), London, 1925, p. 110, n. 31, 32; op. cit., J. Harrison, p. 396-9. Varro denying the role of omphalos as the centre of the Earth, says that all we have good authority for is that the omphalos was *Pythonis tumulus* (the tomb of the sacred serpent of Delphi, Python). Roscher declares that the omphalos was from the first believed to be the centre of the Earth. Nilsson, not satisfied with either interpretation, argues that the conception of the burial stone and that of the centre of the world, both came after and took the place of a "primitive" stone cult. Op. cit., Nilsson, 1979, p. 76.

170. Op. cit., Nilsson, 1979, p. 77; he finds a relation with the Hittitic Apulunas, god of the gates. Harpocration attributes the Aguieus pillar to both, Apollo and Dionysos; op.cit., Harrison, p. 407. Harisson argues that the pillar was neither Apollo nor Dionysos, but a fertility symbol which preceded and entered into the nature of both.

171. Op. cit., Eliade, 1958, p. 235.

172. See our discussion about the Social Dimension of Aesthetic Pleasure in the Classical Era, in Section 2. 3. 4.

173. Op. cit., Coulton, pp. 108-112; for the refinements of the Parthenon see Penrose, The Principles of the Athenian Architecture, publ. by the Society of Dilettanti, London, 1878 (1st ed. 1851); for a presentation of the several approaches see W. H. Goodyear, Greek Refinements, The Yale University Press, 1912.

174. Op. cit., Jaeger, pp. 321-331.

175. Op. cit., Dodds, 1951, Chapter VIII, The Fear of Freedom, pp. 136-69.

176. Op. cit., Coulton, p. 111.

177. Op. cit., Dodds, 1951, p. 35.

178. Op. cit., Coulton., p. 123.

179. See also our discussion in Section 2. 3. 2. 2.

180. G. Glotz, *La cité greque*, ed. Albin Michel, 1928.

181. Op. cit., Vitruvius, p. 110.

182. Op. cit., Heidegger, p. 23.

CHAPTER THREE

THE SECULARIZATION OF POLITICS AND THE GENESIS OF THE MODERN STATE

1. Ernst Cassirer, The Myth of the State, Yale University Press, New Haven and London, 1946, pp. 105, 107, 132.

2. About the Classical conception of justice and metaphysics see Chapter Two and Section Three One of Chapter Three. About the Christian conception of political justice see for instance: Cassirer, pp. 81-2, ibid; R. G. Gettell, History of Political Thought, George Allen and Unwin LTP, London, second ed. 1953, p. 98.

3. Ibid., Cassirer, pp. 94-5.

4. Augustine, De Ordine, 50 (tr. R. P. Russell), included in: Philosophies of Art and Beauty, ed. A. Hofstadter and R. Kuhns, The University of Chicago Press, Chicago, 1964, p. 184.

5. Thomas Aquinas, *Summa Theologiae*, Vol. 28, "Law and Political Theory", 1a 2ae. 90-97, ed. and intr. A. P. D' Entreves (tr. J. G. Dawson), Blackwell's Political Texts, Oxford, 1978 (c/1948).

6. P. Kondylis, *I Kritiki tis Metaphysikis sti Neoteri Skepsi, Gnosi, Athena*, 1983, p. 16.

7. Op. cit., Cassirer, pp. 138-9. In using the term Renaissance we bear in mind that it in no sense indicates a homogeneous historical period in the way Jacob Burkhardt describes it; it is rather understood as an ambiguous term that corresponds to conflicting attitudes, each one of which claims its relation to Rome as its source of existence. For a discussion see: Journal of the History of Ideas, vol. IV, no 1, January 1943.

8. Niccolo Machiavelli, The Prince (1516) (tr. G. Bull), Penguin Classics, Harmondsworth, 1972; see also: The Discources (1519) (tr. L. J. Walker), Penguin Classics, Harmondsworth, 1983.

9. Op. cit., Cassirer, pp. 133-156; for the variety of interpretations on Machiavelli, see: E. W. Cochrane, "Machiavelli: 1940-1960", published in: Journal of Modern History, June 1961, pp. 113-36.

10. Op. cit., Kondylis, pp. 104-7.

11. Aristotle, Metaphysics, 1029a20ff. (Loeb Classical Library, tr. H. Tredennick, Harvard University Press, London, 1933). The term "induction" is the Latin translation of the Aristotelian *epagogé*.

12. Op. cit., Kondylis, pp. 108-9. In ancient Greek *methodeia* means craft, while *methodos* a pursuit of knowledge (Liddell and Scott, Greek-English Lexicon, Oxford, 1888, p. 493). The term *techné*, art, was used to signify "skilled production", in general; see the discussion in Chapter Three, Section Three Three One.

13. Op. cit., Kondylis, pp. 110-1.

14. Op. cit., Aristotle, 1029a20ff.

15. Galileo Galilei, Dialogues concerning Two New Sciences (tr. H. Crew and A. de Salvio), intr. A. Favaro, The Macmillan Company, New York, 1933(c/1914); Thomas Hobbes, De Cive, in: English Works of Thomas Hobbes, ed. W. Molesworth, 1839; see discussion in: op. cit., Kondylis, pp. 205ff.

16. Ibid., Kondylis, p. 15n.

17. Rene Descartes, *Discours de la Methode; Mediations Metaphysiques; Traité de Passions* (intr. E. Faguet), Lutetia, Paris, 1946. See also discussion in: Ernst Cassirer, The Philosophy of the Enlightenment (tr. F. C. A. Koelln and J. P. Pettegrove), Princeton University Press, Princeton, New Jersey, 1968(c/1951), pp. 297-8.

18. Op. cit., Cassirer, 1946, p. 165; ibid., Cassirer, 1951, pp. 237ff.

19. Op. cit., Gettell, pp. 97ff.

20. Otto Gierke, Natural Law and the Theory of Society (tr. E. Barker), Beacon Press, Boston, 1957(c/1934, Cambridge Univ. Press), pp. xli-l.

21. Ibid., pp. l-liv; op. cit., Kondylis, p. 317.

22. See for instance: George Wilhelm Friedrich Hegel, Lectures on the Philosophy of the World History, Introduction: Reason in History (tr. H. B. Nisbet), Cambridge University Press, Cambridge, 1984 (c/1975).

23. Hans-George Gadamer, Truth and Method, Sheed and Ward, London, 1975(c/German 1960), p. 309.

24. Quoted in: Cassirer, 1946, p. 265, op. cit.

25. Karl Marx and Frederick Engels, Manifesto of the Communist Party, published in: Marx/Engels, Selected Works, Lawrence and Wishart, London, 1980(c/1968).

26. Quoted in: Hannah Arendt, The Human Condition, The University of Chicago Press, Chicago, 1958, p. 248.

27. Richard J. Bernstein, Philosophical Profiles, Polity Press, Cambridge, 1986, pp. 162-3.

28. Immanuel Kant, Critique of Pure Reason (tr. J. M. D. Meiklejohn), Dent, London, 1934, pp. 458ff.

29. Op. cit., Bernstein, p. 163.

30. Gerard Verbeke, The Presence of Stoicism in Medieval Thought, The Catholic University of America Press, Washington D. C., 1983; see also: op. cit., Gettell, pp. 97-8.

31. Op. cit., Cassirer, 1946, pp. 166-7, 169.

32. See for instance: Karl Marx and Frederick Engels, Manifesto of the Communist Party, pp. 44, 51-2, and Engel's letter to F. Mehring, July 14, 1893, p. 690, both published in: Marx/Engels, Selected Works, op. cit. On Nietzsche's concept of morality see Alasdair MacIntyre, "Lecture Two: Genealogies as Subversions", Gifford Lectures, Edinburgh University, 1987-8.

33. Op. cit., Arendt, p. 209.

34. Jurgen Habermas, The Theory of Communicative Action I: Reason and the Rationalization of Society (tr. T. Mc Carthy), Boston, 1984; for Lyotard's criticism see: Jean-Francois Lyotard, The Postmodern Condition: A Report on Knowledge (tr. G. Bennington and B. Massumi), Minneapolis, 1984; see for a discussion: Richard Rorty, "Habermas and Lyotard on Postmodernity", published in: Habermas and Modernity, ed. and intr. by R. J. Bernstein, Polity Press, Cambridge, 1986(c/Basil Blackwell, Oxford, 1985), pp. 161-175.

35. Karl R. Popper, The Poverty of Historicism, Routledge and Kegan Paul Ltd., London 1976(c/Popper1957), pp. 64-70.

36. Bill Jordan, The State, Authority and Autonomy, Basil Blackwell, Oxford, 1986 (c/1985), pp. 9-10.

37. Ibid., pp. 10-11.

38. Op. cit., Arendt, pp. 38ff.

39. Op. cit., Jordan, p. 1.

40. Even in the field of pure mathematics, taken by principle to operate within human reason, Goedel proved in 1931, referring to natural numbers, that it is impossible to prove the consistency of any formal system within the system itself; Kurt Goedel, On Formally Undecidable Propositions of Principia Mathematica and Related Systems (tr. B. Meltzer), intr. R. B. Braithwaite, Oliver and Boyd, Edinburgh, 1962.

41. Martin Heidegger, The Origin of the Work of Art, incl. in: A. Hofstadter and R. Kuhns eds, Philosophies of Art and Beauty, The University of Chicago Press, Chicago, 1976 (c/1964), p. 656. The immortality of reason is understood by Augustine in this sense: "Perhaps reason is not immortal? But one to two, or two to four, is a ratio in the truest sense. That ratio was no truer yesterday than today, nor will it be truer tomorrow or a year hence. Even if the whole world should fall in ruins, that

ratio will always necessarily be: it will always be such as it is now." De Ordine, 50, op. cit.

42. Le Corbusier, Towards a New Architecture (tr. Frederick Etchells), The Architectural Press, London, 1987 (1st c/1923), p. 6.

CHAPTER FOUR

THE MODERN CONCEPTION OF ART AS AUTONOMOUS

1. Paul Oskar Kristeller, "The Modern System of the Arts: A Study in the History of Aesthetics(II)", in: Journal of the History of Ideas, XIII, 1952, pp. 42-5.

2. Ibid., pp. 33-5.

3. See Paul Oskar Kristeller, "The Modern System of the Arts: A Study in the History of Aesthetics(I), in: Journal of the History of Ideas, XII, 1951, pp. 496-7.

4. W. Tatarkiewicz gives a detailed account of the meaning of the terms *techne* and *ars* in his "Classification of the Arts in Antiquity", Journal of the History of Ideas, Vol. XXIV, April 1963, pp. 231-40; for a discussion of the term see also: R. G. Collingwood, The Principles of Art, Oxford University Press, Oxford, 1958(c/1938), pp. 5-7, 15f.

5. Plato, Gorgias, 462bff (tr. W. R. M. Lamb), The Loeb Classical Library, William Heinemann Ltd, London, 1961 (c/1925); Aristotle, Nicomachean Ethics, VI4, 1140a10 (tr. H. Rackham), The Loeb Classical Library, Harvard University Press, Cambridge, Massachusetts, 1947 (c/1926); both discussed by Kristeller in op. cit., 1951, p. 499.

6. Plato, Ion, 534 (tr. W. R. M. Lamb), The Loeb Classical Library, William Heinemann Ltd, London, 1925.

7. Op. cit., Tatarkiewicz, p. 231.

8. Op. cit., Kristeller, 1951, p. 499.

9. Plotinus, Ennead, I, 6, 1-3; V, 8, 1 (tr. A. H. Armstrong), The Loeb Classical Library, William Heinemann Ltd, London, 1966.

10. Op. cit., Kristeller, 1951, p. 500; op. cit., Tatarkiewicz, p. 236-8; see also the introduction to selections from Plotinus by A. Hofstadter and R. Kuhns, in: Philosophies of Art and Beauty, ed. A. Hofstadter and R. Kuhns, The University of Chicago Press, 1964, pp. 139-41.

11. Ibid., Tatarkiewicz, p. 232.

12. Ibid., p. 233.

13. Ibid., p. 233-4.

14. Op. cit., Kristeller, 1951, p. 507-8.

15. Ibid., p. 508.

16. Ibid., p. 509.

17. Arnold Hauser, The Social History of Art, Routledge and Kegan Paul, London, 1951, Vol. I, p. 383-5; see also ibid., p. 514.

18. See for instance: Irma A. Richter ed., The Notebooks of Leonardo da Vinci, Oxford University Press, Oxford, 1987(c/1952).

19. Richard Woodfield, "On the Emergence of Aesthetics", British Journal of Aesthetics, Vol. 18, 1978, p. 218.

20. Rudolf Wittkower, Architectural Principles in the Age of Humanism, Academy Editions, London, 1973, p. 5.

21. Heinrich Wolfflin, Renaissance and Baroque (tr. Kathrin Simon, intr. Peter Murray), William Collins Sons and Co Ltd, 1984 (c/1964), p. 29.

22. E. H. Gombrich, Norm and Form (Studies in the art of the Renaissance), Phaidon Press Limited, Oxford, 1985 (c/1966).

23. Op. cit., Hauser.

24. Op. cit., Woodfield, p. 224.

25. Ibid., p. 223.

26. Ibid., p. 226-7.

27. See for instance: R. G. Saisselin, "Critical Reflections on the Origins of Modern Aesthetics", British Journal of Aesthetics, Vol. 4, 1964, pp. 7-21.

28. Op. cit., Kristeller, 1951, p. 525.

29. Ibid., p. 527.

30. Ibid., p. 527.

31. Kenneth Frampton, Modern Architecture, A critical History, Thames and Hudson Ltd, London, 1980, p. 8.

32. Op. cit., Hauser, p. 385.

33. Ernst Cassirer, The Philosophy of the Enlightenment (tr. Fritz C. A. Koelln and James P. Pettegrove), Princeton University Press, Princeton, New Jersey, 1979, pp. 93ff.

34. See Richard Wollheim, Art and its Objects, Cambridge University Press, Cambridge, 1980, p.

35. David Hume, "Of the Standard of Taste", in: David Hume, Essays Moral, Political, and Literary, Longmans, Green and Co, London, 1875, pp. 266-84; Immanuel Kant, The Critique of Judgement (tr. James Creed Meredith), At the Clarendon Press, Oxford, 1969 (c/1952).

36. Ibid., Hume, p. 268.

37. Ibid., P. 270.

38. Ibid., p. 278.

39. Ibid., pp. 280-1.

40. Ibid., pp. 283-4.

41. Op. cit., Kant, p. 50.

42. Ibid., p. 29.

43. Ibid., p. 80.

44. Michael Podro, The Manifold in Perception (Theories in Art from Kant to Hildebrand), At the Clarendon Press, Oxford, 1972, pp. 12-7.

45. Op. cit., Collingwood, p. 224.

46. Op. cit., Kant, p. 62.

47. Ibid., p. 64.

48. Ibid., 22, p. 84.

49. Ibid., 22.

50. Ibid., 20, p. 83.

51. Ibid., 22, p. 85.

52. Ibid., 9, p. 60.

53. Op. cit., Hauser, p. 328.

54. Christos Karousos, *Perikalles Agalma Exepoies' Ouk Adaes*, Hermes EPE, Athena, 1982.

55. Rudolf Wittkower, "Individualism in Art and Artists: A Renaissance Problem", Journal of the History of Ideas, Vol. XXII, July-September 1961, Number 3, p. 292.

56. Ibid., p. 297.

57. Ibid., p. 297.

58. Op. cit., Wittkower, 1961, p. 298.

59. Giorgio Vasari, Lives of the Artists, Penguin Classics, London, 1988 (c/1965), pp. 284-442. See a discussion in: op. cit., Hauser, p. 324; Ibid., Wittkower, 1961, p. 298.

60. Op. cit., Kristeller, 1951, p. 514.

61. Op. cit., Woodfield, pp. 218-9.

62. Op. cit., Hauser, pp. 321-2.

63. For the distinction between architect and builder that first occurred in the Renaissance, see: Leopold D. Ettlinger, "The Emergence of the Italian Architect during the Fifteenth Century", publ. in: Spiro Kostof editor, The Architect, Oxford Univ. Press, Oxford, 1977, p. 121.

64. Op. cit., Hauser, pp. 335-6.

64. Ibid., pp. 326ff.

66. Ibid., p. 382.

67. Op. cit., Kristeller, 1951, p. 511.

68. Op. cit., Wittkower, 1961, p. 296.

69. Op. cit., Hauser, p. 382; op. cit., Woodfield, p. 225.

70. E. Kris, Psychoanalytic Explorations in Art, 1974; see Chapter Seven in Particular, "The Principles of Caricature" (written in collaboration with E. H. Gombrich), p. 202.

71. Op. cit., Wittkower, 1961, p. 295.

72. Ibid., p. 296.

73. Ibid., p. 294.

74. Ibid., p. 294.

75. Op. cit., Vasari, pp. 284-324.

76. Op. cit., Hauser, pp. 383-6.

77. Op. cit., Wittkower, 1961, p. 299.

78. Op. cit., Kant, pp. 46-8.

79. Ibid., p. 50.

80. Jerome Stolnitz, "On the Origins of "Aesthetic Disinterestedness"", Journal of Aesthetics and Art Criticism, XX, 1961.

81. Op. cit., Kristeller, 1951.

82. Op. cit., Kristeller, 1952, p. 44.

83. Op. cit., Hauser, p. 386-7.

84. Ibid., p. 450-1.

85. Op. cit., Stolnitz, p. 132.

86. Anthony, Earl of Shaftesbury, Characteristics, ed. Robertson, London, 1900, II, 270n., quoted in: ibid., Stolnitz, p. 133.

87. See the discussion in: Stolnitz, pp. 134, 140 in particular.

88. Ibid., p. 134.

89. Edmund Burke, A Philosophical Enquiry into the Origin of our Ideas of the Sublime and the Beautiful, ed. J. T. Boulton, London, 1958 and 1987, p. 51; discussed by ibid., Stolnitz, p. 135.

90. Ibid,, p. 91.

91. Ibid., p. 40.

92. Archibald Alison, Essays on the Nature and the Principles of Taste, Edinburgh, 1790, p. 19; discussed by op. cit., Stolnitz, p. 137.

93. Ibid., pp. 10-11.

94. Op. cit., Stolnitz, pp. 139-43.

CHAPTER FIVE

THE MODERN MOVEMENT ARCHITECTURE: FORM AS THE BATTLE-GROUND OF AESTHETIC VERSUS ECONOMIC IMPERATIVES

1. For a discussion about "natural ethics" see Chapter Three.

2. John Summerson, The Classical Language of Architecture, Thames and Hudson Ltd, London, 1988 (c/1980), p. 90.

3. Kenneth Frampton, Modern Architecture - A Critical History, Thames and Hudson Ltd, London, 1980, p. 14.

4. Ibid., p. 14.

5. Ibid., p. 14.

6. Op. cit., Summerson, p. 91; ibid, p. 14.

7. Ibid., Summerson, p. 91.

8. Op. cit., Frampton, p. 19.

9. Op. cit., Summerson, pp. 92-3.

10. Peter Collins, Changing Ideals in Modern Architecture 1750-1950, Faber and Faber, London, 1965, pp. 79-81; Joseph Rykwert, The First Moderns, The MIT Press, Cambridge, Massachusetts, 1983 (c/1980), p. 275-80.

11. Ibid., Collins, pp. 83-4.

12. August Choisy, *Histoire de l' Architecture*, Paris, 1899; see discussion in: Reyner Banham, Theory and Design in the First Machine Age, Butterworth Architecture, 1988 (c/1960), pp. 27-8.

13. G. Semper, *Die vier Elemente der Baukunst, Braunschweig*, 1851, and *Das Stijl in den technischen und tektonischen Kunsten, Munchen*, 1878; E. Moessel, *Die Proportion in Antike und Mittelalter, Munchen*, 1926, and *Urformen des Raumes als Grundlagen der Formgestaltung, Munchen*, 1931; Th. Fischer, *Zwei Vortrage uber Proportionen, Oldenburg*, 1934; O. Wolff, *Tempelmase, das Gesetz der Proportion in den antiken und altchristlichen Sakralbauten, Wien*, 1912; A. Thiersch, *Die Proportionen in den Architektur in Architektonische Komposition, Leipzig*, 1904; J. Hambidge, The Parthenon and other Greek temples - their dynamic symmetry, Yale Univ. Press, 1924. W. W. Lloyd's theory is published in: Penrose, The Principles of the Athenian architecture, 1878, pp. 132-158; for M. Theuer's theory see K. Doxiades, *Trito Mati, Athena*, 1982, pp. 2233-4.

14. Edmund Husserl, Logical Investigations (trans. J. N. Findlay), Routledge and Kegan Paul, London, 1970 (c/1900, in German), Vol. I, p. 428.

15. Bruno Zevi, "Where is Modern Architecture Going", Global Architecture Documents, 1981, Vol. 3, p. 11.

16. Colin Rowe, The Mathematics of the Ideal Villa and Other Essays, MIT Press, Cambridge, Massachusetts, 1988 (c/1976), p. 40; Herschel B. Chipp, Theories of Modern Art, University of California Press, Berkeley and Los Angeles, California, 1968, p. 193.

17. Maurice Raynal, "Conception and Vision", Gil Blas, Paris, August 1912; Fernand Leger, "The Origins of Painting and its Representational Value, *Montjoie!*, No 8, 9-10, Paris, 1913; both included in: Edward F. Fry, Cubism, The World of Art, Oxford University Press, New York, 1978, pp. 94-6 and 121-6.

18. Albert Gleizes and Jean Metzinger, "*Du Cubism*", 1912, incl. in: op. cit., Chipp, pp. 207-16 (parts III & V omitted).

19. Op. cit., Raynal, p. 96; see also Maurice Raynal, "Some Intentions of Cubism", Paris, 1919, incl. in: op. cit., Edward F. Fry, p. 151.

20. Daniel-Henry Kahnweiler, from "The Rise of Cubism", 1915, incl. in: op. cit., Chipp, p. 257.

21. John Golding, "Cubism", published in: Nikos Stangos ed., Concepts of Modern Art, Thames and Hudson Ltd, London, 1988 (c/1981), pp. 65-6.

22. Op. cit., Albert Gleizes and Jean Metzinger, p. 210.

23. Ibid., p. 208.

24. Op. cit., Fry, p. 37.

25. Ibid., p. 38.

26. Ibid., p. 38.

27. Leo Stein, Appreciation - Painting, Poetry, and Prose, New York, 1947, p. 177; quoted in ibid., Fry, p. 39.

28. Guillaume Apollinaire, "The Cubist Painters", Paris, 1913, parts of which are published in: ibid., Fry, p. 115.

29. The term "*l' Art pour l' Art*" was coined by Victor Cousin and was quite common in architecture in the mid-nineteenth century. The invention of *collage* however in the 1920s with which the distinction between the real thing and its depiction disappears, gave an additional meaning to the term. See op. cit., Peter Collins, p. 275.

30. Op. cit., Raynal, 1919; cited in: op. cit., Fry, p. 152.

31. *L' Elan*, Paris, February, 1916, No 9, ed. by Ozenfant; discussed by ibid., Fry, p. 153.

32. Juan Gris, "Personal Statement", *L' Esprit Nouveau*, Paris, February 1921, No 5, pp. 533-4; incl. in: ibid., Fry, p. 162.

33. See the discussion in Chapter Three, pp. 9-11.

34. Ozenfant and Jeanneret, *Le Purism, L' Esprit Nouveau*, no 4, 1920.

35. Le Corbusier and Amedee Ozenfant, *Après le Cubisme, Editions de Commentaires, Paris, 1918.*

36. Op. cit., Fry, pp. 171-2.

37. Christopher Green, "Purism", incl. in: op. cit., Stangos ed., pp. 82-3.

38. Ibid., pp. 81, 83-4.

39. Op. cit., Frampton, pp. 156-7.

40. Op. cit., Le Corbusier and Amedee Ozenfant, 1918, p. 39.

41. Amedee Ozenfant, *Ce Mois Passé, L' Esprit Nouveau,* No 19, 1923; *Certitude, No 1, L' Esprit Nouveau,* No 27, 1925; *Certitude, No 2, L' Esprit Nouveau,* no 28, 1925; discussed in: op. cit., Green, p. 81.

42. Le Corbusier, Towards a New Architecture (tr. Frederick Etchells), The Architectural Press, London, 1987 (c/1946), p. 67; first published by Editions Cres, Paris, 1923; Reyner Banham argues that Le Corbusier misinterpreted August Choisy, who, although he records the use of regulating lines in the Middle Ages and the Renaissance, does not seem to attribute great importance to them; generally, form is regarded by Choisy as having laws of harmony and proportion of its own but Choisy's appreciation of these laws seems ambiguous; op. cit., Reyner Banham, 1960, pp. 27-8.

43. Ibid., p. 72.

44. Ibid., p. 72.

45. Rudolf Wittkower, Architectural Principles in the Age of Humanism, Academy Editions, London, 1977 (c/1973), pp. 107ff.

46. Op. cit., Le Corbusier, 1987, p. 72.

47. Ibid., p. 72.

48. Le Corbusier, *Conférence;* quoted from: Roger Herz-Fischler, "Le Corbusier's "Regulating Lines" for the Villa at Garches(1927) and Other Early Works", Journal of the Society of Architectural Historians, Vol. 43, 1984, p. 59; in this paper, Herz-Fischer asserts that the use by Le Corbusier of the "golden number" for the Villa at Garches (1927) preceded M. Ghyka's publication of the *Esthétique des proportions dans la nature et dans les arts,* Paris, 1927, which proves that regulating lines were used by Le Corbusier only in order to confirm already existing plans.

49. Le Corbusier, *Précisions sur un état présent de l' architecture et de l' urbanism, Paris,* 1930, p. 73; quoted by ibid., Fischler, p. 59.

50. Op. cit., Colin Rowe, Chapter One in particular; op. cit., Summerson, p. 112.

51. Le Corbusier, *L' Esprit de Verité, L' Architecture Vivante, automne-hiver,* 1927, 5-6; quoted in: op. cit., Fischler, p. 59.

52. Op. cit., Le Corbusier, 1987, p. 205.

53. Ibid., p. 209.

54. Jose Ortega y Gasset, "First Installment on the Dehumanization of Art", 1948, incl. in: Modernism: The Call For Form, pp. 33-43; see p. 41 in particular.

55. Op. cit., Colin Rowe, p. 42.

56. Ibid., Rowe, pp. 40-1.

57. Op. cit., Collins, pp. 277-8.

58. Op. cit., Le Corbusier, 1987, p. 41.

59. Ibid., p. 211.

60. Ibid., p. 217.

61. From the first manifesto of De Stijl (1918), quoted by op. cit., Frampton, p. 142; see also: Piet Mondrian, "Plastic Art and Pure Plastic Art" ("Figurative Art and Nonfigurative Art"), 1937, publ. in op. cit., Chipp, pp. 349-62, quotation taken from p. 364.

62. Ibid., Chipp, p. 358.

63. Op. cit., Frampton, pp. 147-8; about the meaning of the diagonal introduced by Van Doesburg in 1925 in order to express the dynamism of the spirit through its contrast with the orthogonal "neoplastic" space, see: Kenneth Frampton, "Neoplasticism and Architecture; Formation and Transformation", incl. in: M. Friedman ed., De Stijl: 1917-1931, Visions of Utopia, Phaidon Press Ltd, Oxford, 1982, p. 111.

64. Kenneth Frampton, "De Stijl, The Evolution and Dissolution of Neoplasticism: 1917-31", publ. in: op. cit., Stangos ed., pp. 140-59; see p. 150.

65. Ibid., pp. 150-1.

66. See H. L. C. Jaffé, De Stijl 1917-1931, Amsterdam, 1956, pp. 58, 60; discussed in: ibid., Frampton, p. 142.

67. Ibid., p. 142.

68. Op. cit., Frampton, 1980, pp. 144-5; 1982, p. 102; see also: Ger Harmsen, "De Stijl and the Russian Revolution", in: op. cit., Friedman ed., pp. 45-9.

69. Aaron Scharf, "Suprematism", publ. in op. cit., Stangos, pp. 138-40.

70. Op. cit., Collins, p. 281.

71. Aaron Scharf, "Constructivism", cit. in op. cit., Stangos, pp. 160-68; see pp. 162-3 in particular.

72. See *Paris-Moscou 1900-1930*, catalogue to an exhibition at the Pompidou Centre in 1979, in particular the Section "*L' Architecture Sovietique 1900-1930*", pp. 286-311.

73. There was never a movement called Expressionism, but the term was attributed to certain attitudes of the twentieth century art that transmit emotions by visual means; see Norbert Lynton, "Expressionism", op. cit., Stangos ed., pp. 30-49; see p. 30 in particular.

74. Op. cit., Frampton, 1980, pp. 116-7.

75. Jürgen Joedicke, History of Modern Architecture, Architectural Press, London, 1959 (first German edition 1958), pp. 63-4.

76. Op. cit., Frampton, 1980, p. 118.

77. Ibid., pp. 117-8.

78. Ibid., p. 118.

79. Op. cit., Joedicke, p. 65.

80. Ibid., p. 64.

81. Op. cit., Frampton, 1980, p. 122.

82. Manfredo Tafuri, Theories and History of Architecture, Granada, London, 1980, p. 160.

83. Op. cit., Collins, pp. 221, 234-5.

84. Nikolaus Pevsner, The Sources of Modern Architecture and Design, Thames and Hudson, London, 1979 (c/1968), p. 179.

85. Op. cit., Le Corbusier, 1987, p. 6 or 227.

86. William J. R. Curtis, Modern Architecture since 1900, Phaidon Press Ltd, Oxford, 1982, p. 105.

87. Op. cit., Le Corbusier, 1987, p. 240.

88. Ibid., p. 253.

89. Op. cit., Frampton, 1980, p. 156.

90. Ibid., p. 155.

91. Herbert Bayer, Walter Gropius, Ise Gropius eds, Bauhaus 1919-1928, The Museum of Modern Art, New York, 1984 (c/1938).

92. Quoted from op. cit., Frampton, 1980, p. 124.

93. From Gropius' essay *Idee und Aufbau des Staatlichen Bauhauses Weimar*, publ. in 1923, on the occasion of the first Bauhaus exhibition at Weimar; quoted in ibid., Frampton, p. 126.

94. W. Gropius' preface to: A. Meyer, *Ein Versuchhaus des Bauhauses*, Munich, 1925; cit. in Leonardo Benevolo, History of Modern Architecture, Routledge and Kegan Paul, London, 1971, Vol. II, p. 525.

95. Ibid., Benevolo, pp. 477-486.

96. Henry-Russell Hitchcock and Philip Johnson, The International Style, W. W. Norton and Company, New York, 1966 (1st c/1932).

97. Mies Van der Rohe, "1927: The design of apartment houses", cit. in: Philip C. Johnson, Mies Van Der Rohe, The Museum of Modern Art, New York, 1978, p. 194.

98. Op. cit., Collins, pp. 275-6.

99. Reyner Banham, "Futurist manifesto", Architectural Review, Vol. 126, No 6, 1959, p. 123.

100. Op. cit., Reyner Banham, 1960, pp. 127-37.

101. Ibid., pp. 118-9.

102. Op. cit., Piet Mondrian, 1937, publ. in op. cit., Chipp, pp. 361-2.

103. Op. cit., Le Corbusier, 1987, p. 47.

104. Ibid., Collins, p. 203.

105. Op. cit., A. Choisy.

106. Op. cit., Collins, pp. 204, 221; for a criticism of the role of the academies in the death of art as craft from the Bauhaus perspective, see: Walter Gropious, "The Theory and Organization of the Bauhaus", op. cit., Bauhaus 1919-1928, p. 21 in particular.

CHAPTER SIX

CONCLUSIONS

1. Aristotle, Nicomachean Ethics, 1140a7, transl. W. D. Ross; discussed in Chapter Two, Section Three of the thesis.

2. See Richard Hertz, "Philosophical Foundations of Modern Art", British Journal of Aesthetics, Vol. 18, 1978, pp. 237-48.

3. T. S. Eliot, The Sacred Wood, Methuen, London and New York, 1960, p. x; the original quotation has as follows: "I prefer the poetry of Dante to that of Shakespeare, (...), because it seems to me to illustrate a saner attitude towards the mystery of life".

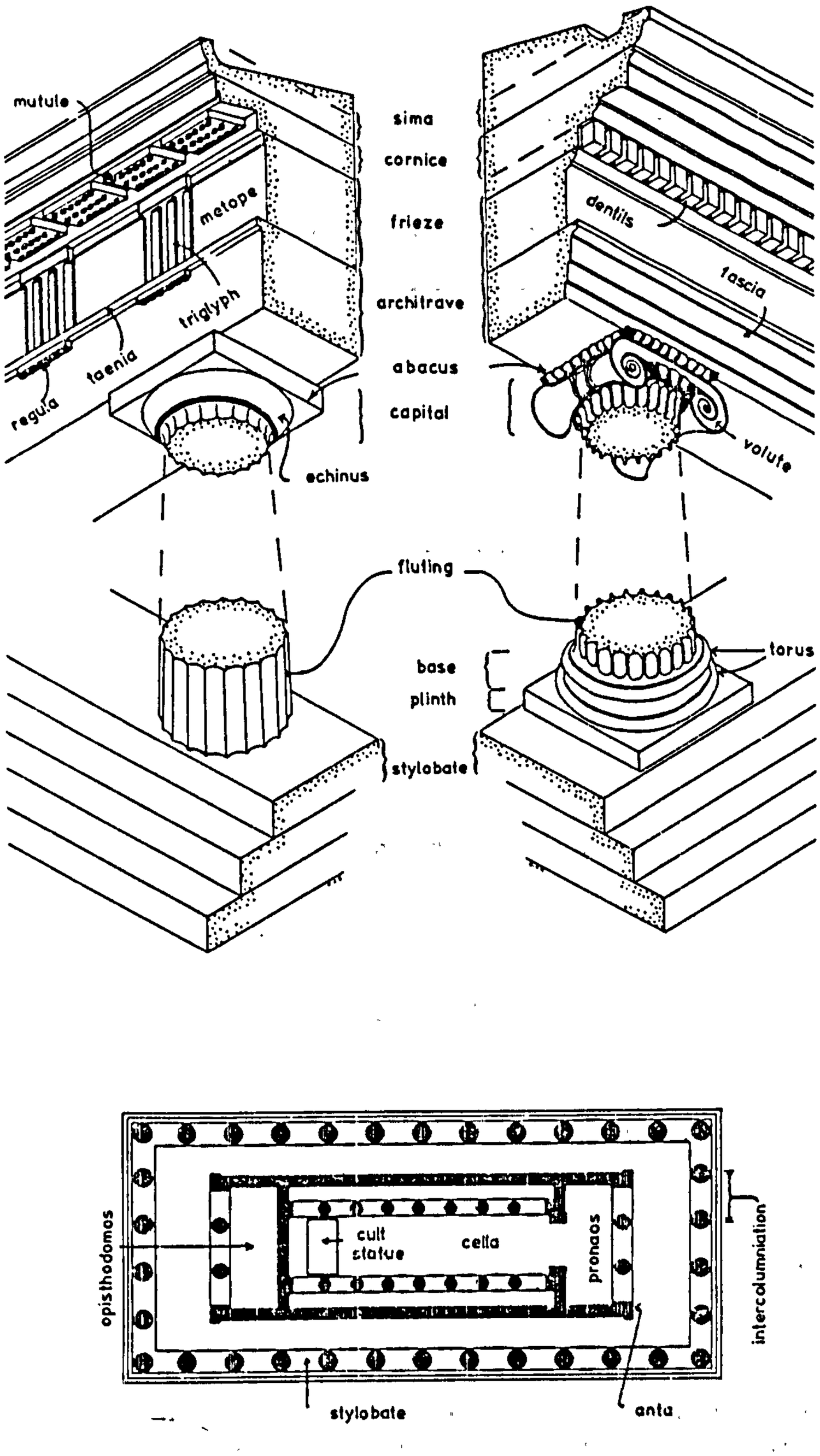
4. See the argument by C. B. Wilson in "Theorising in Practice", Edinburgh Architecture Research, Vol. 13, 1986, pp. 11-29.

5. Tom Wolfe, "The Painted Word", Harper's, April 1975, pp. 57-92; see p. 57 for the quotation.

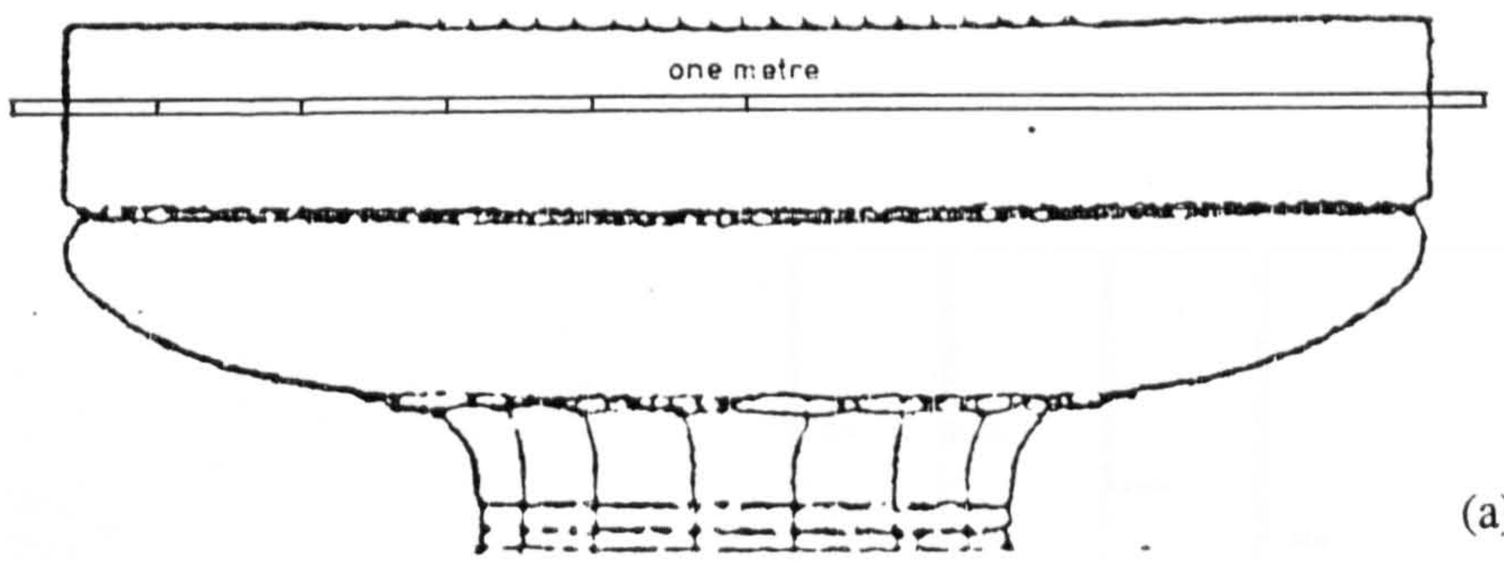
6. Reyner Banham, Theory and Design in the First Machine age, Butterworth Architecture, London , 1960, p. 320.

7. Sigfried Giedion, Space, Time and Architecture, Cambridge, Mass., 1941.

ILLUSTRATIONS



Ills 2-1, 2 Vocabulary of the Doric and Ionic order (source: Coulton, pp. 190-1).



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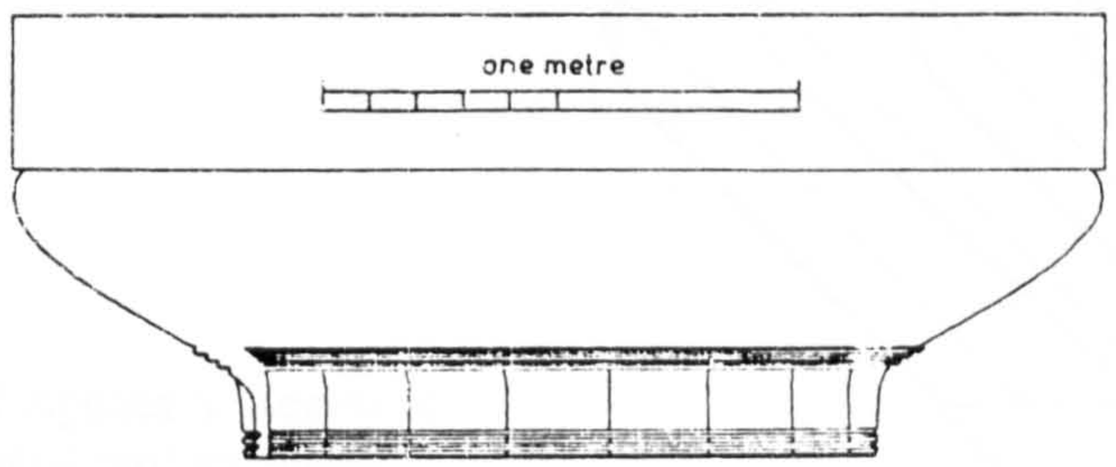

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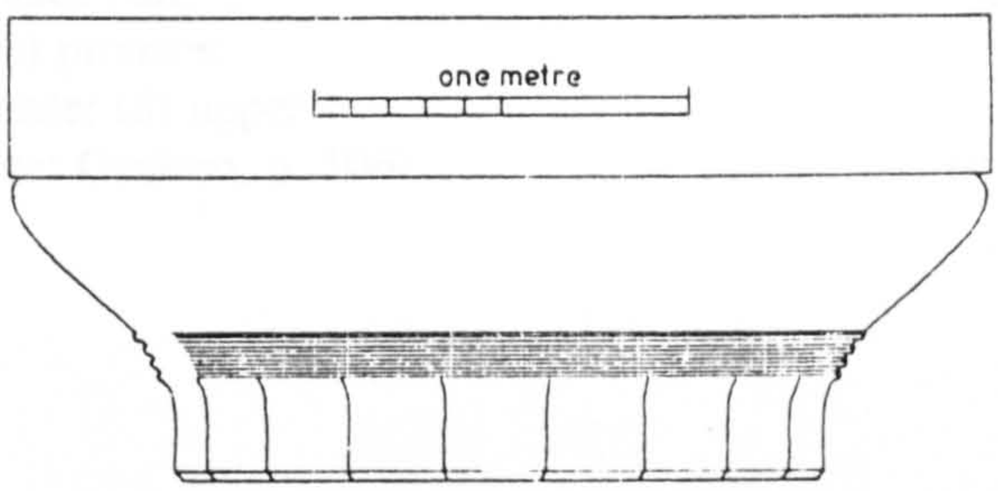

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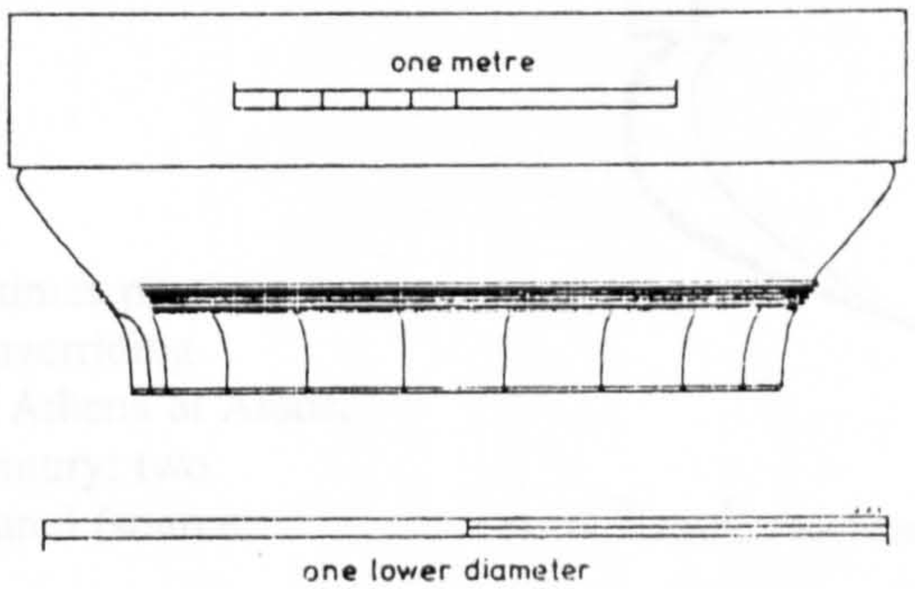
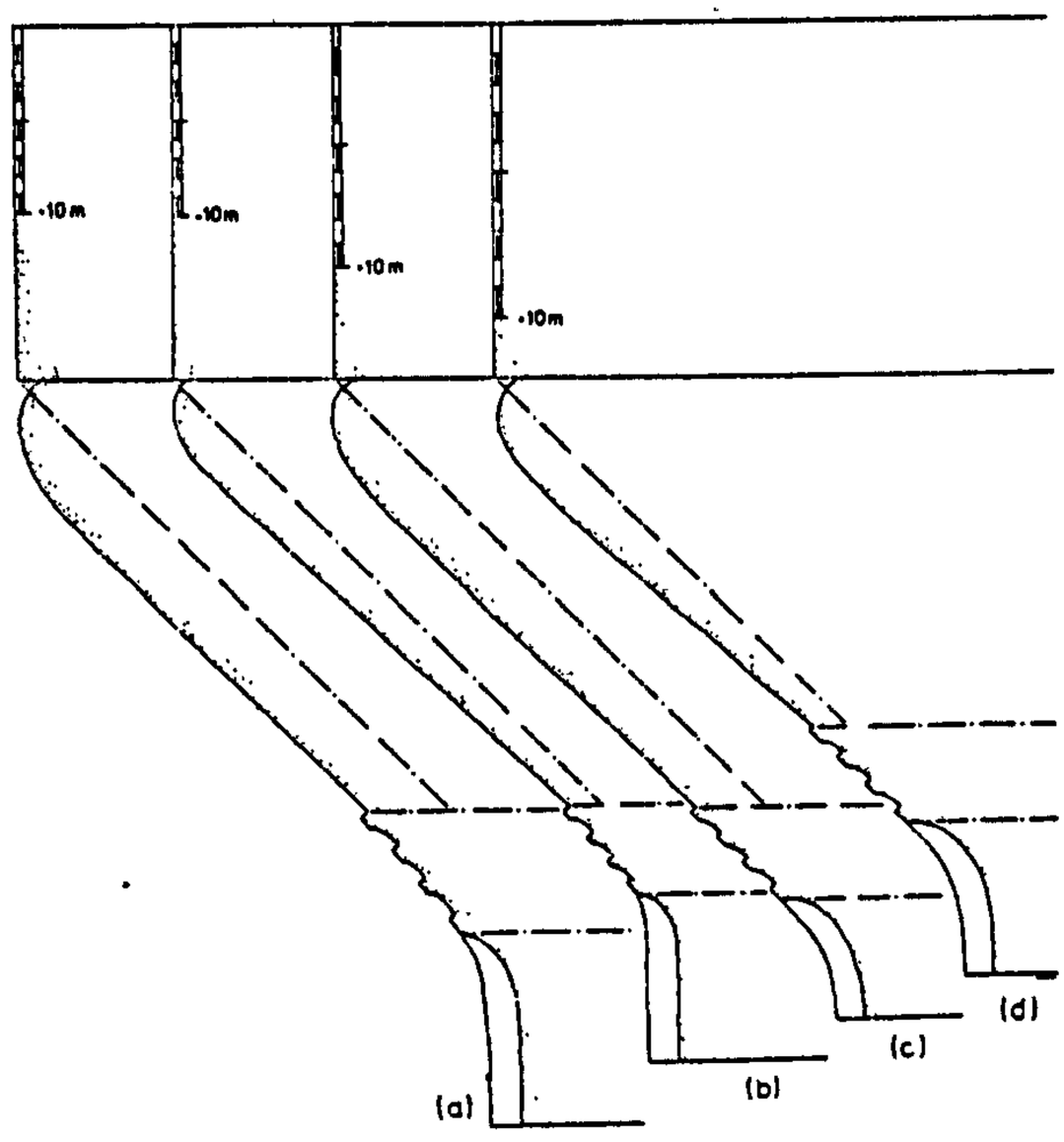
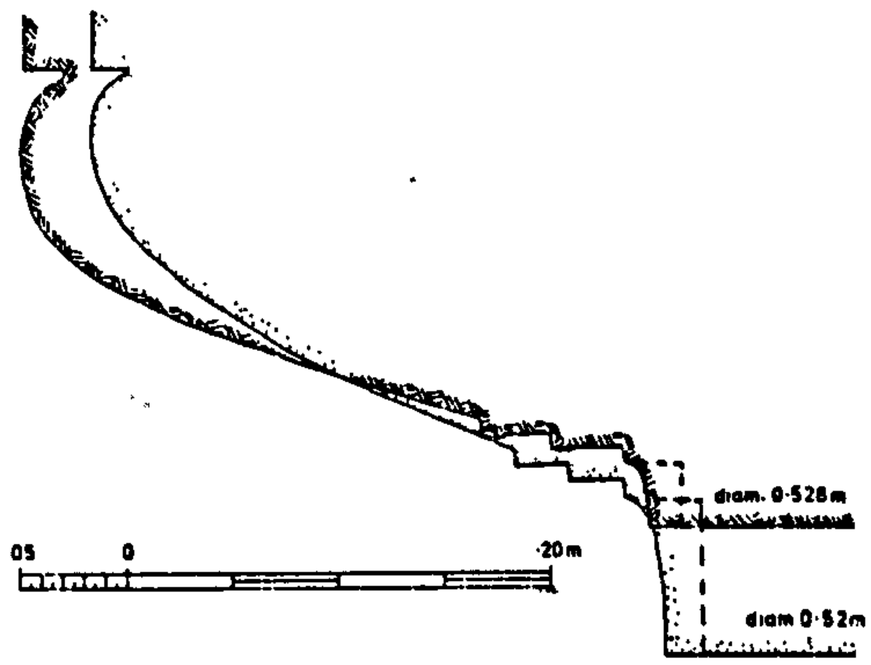


(d)

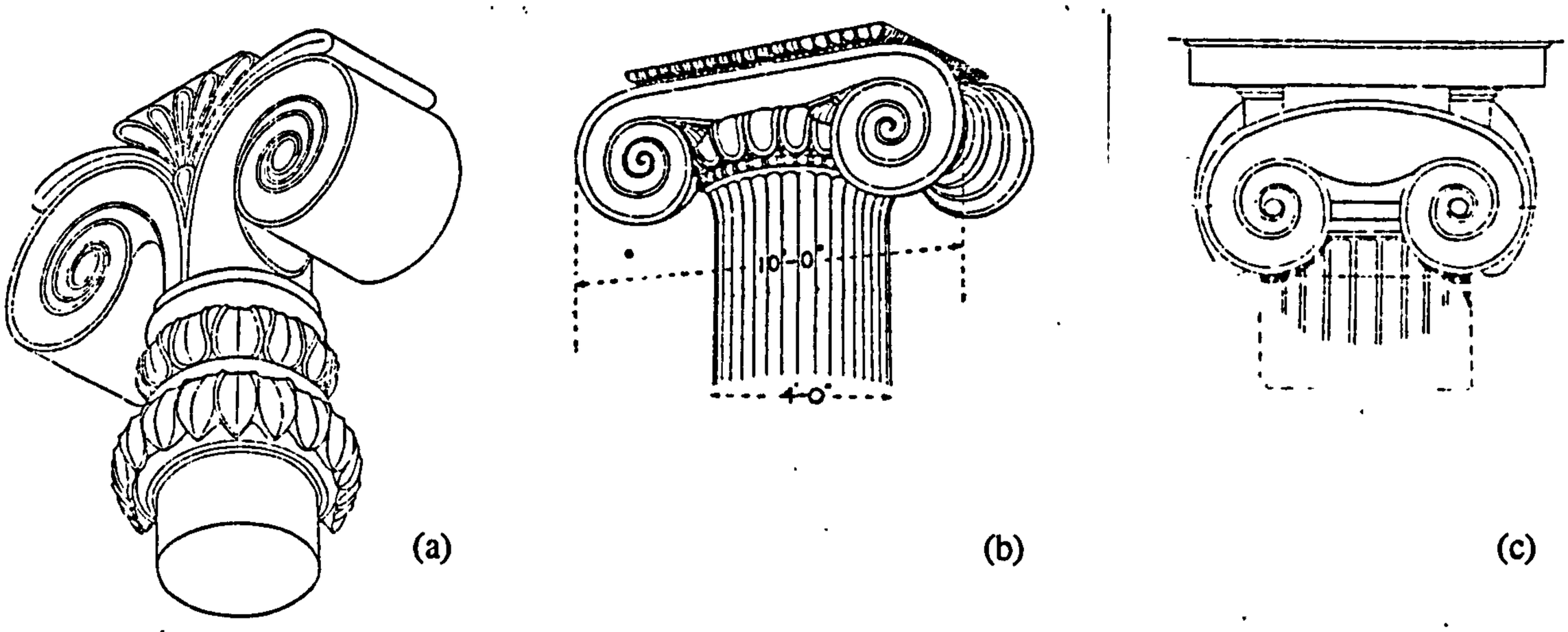
Ill. 2-3 Evolution of the Doric capital; Doric capitals scaled to suit a uniform lower diameter; (a) oldest temple of Athena Pronaia at Delphi, seventh century (source: Lawrence, p. 102); (b) temple of Apollo at Corinth, c. 540 B.C.; (c) temple of Zeus at Olympia, c. 470-460 B.C.; (d) Parthenon at Athens, c. 447-440 B.C. (source: Coulton, p. 103).



Ill. 2-4 Temple of Aphaea at Aegina, c. 510-490 B.C.: capital profiles scaled to give a uniform abacus height: (a) outer colonade; (b) pronaos; (c) lower inner colonade; (d) upper inner colonade (source: Coulton, p. 106).

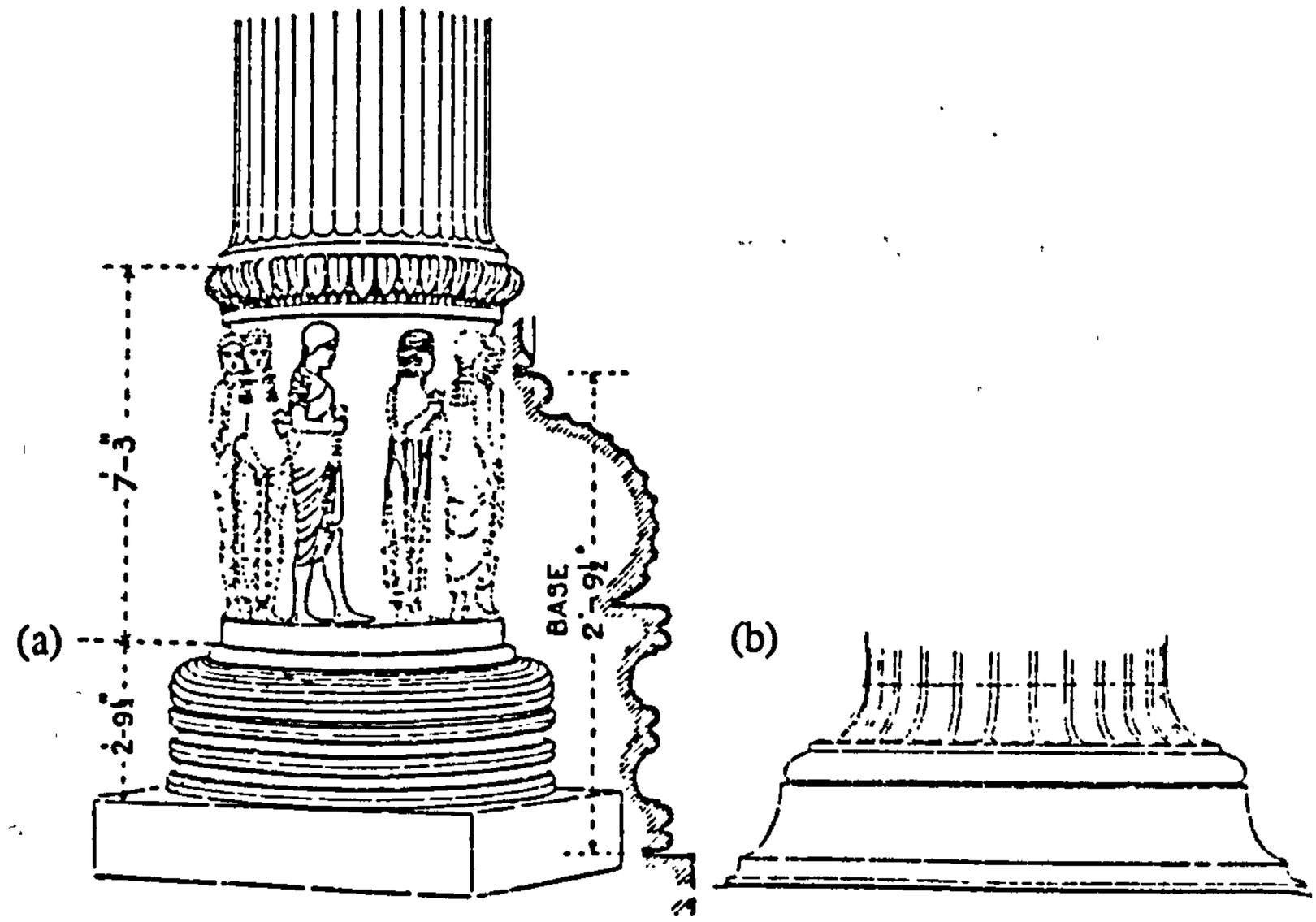


Ill. 2-5 In the archaic times precise regularity was not of overriding importance; temple of Athena at Assos, middle to late sixth century: two echinus profiles compared (source: Coulton, p. 104).

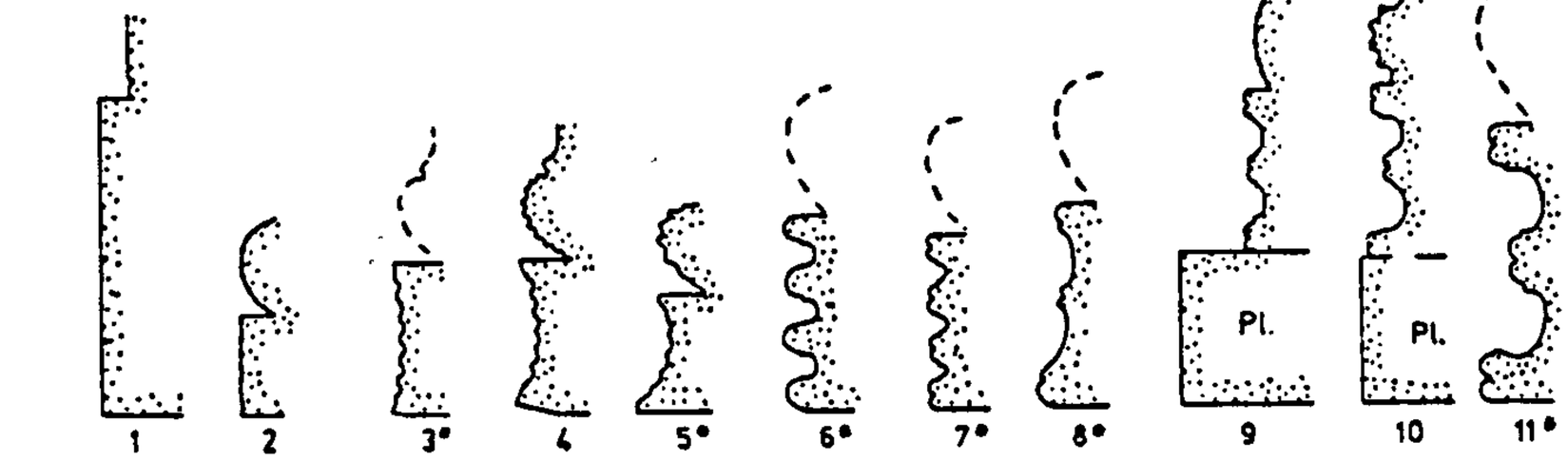


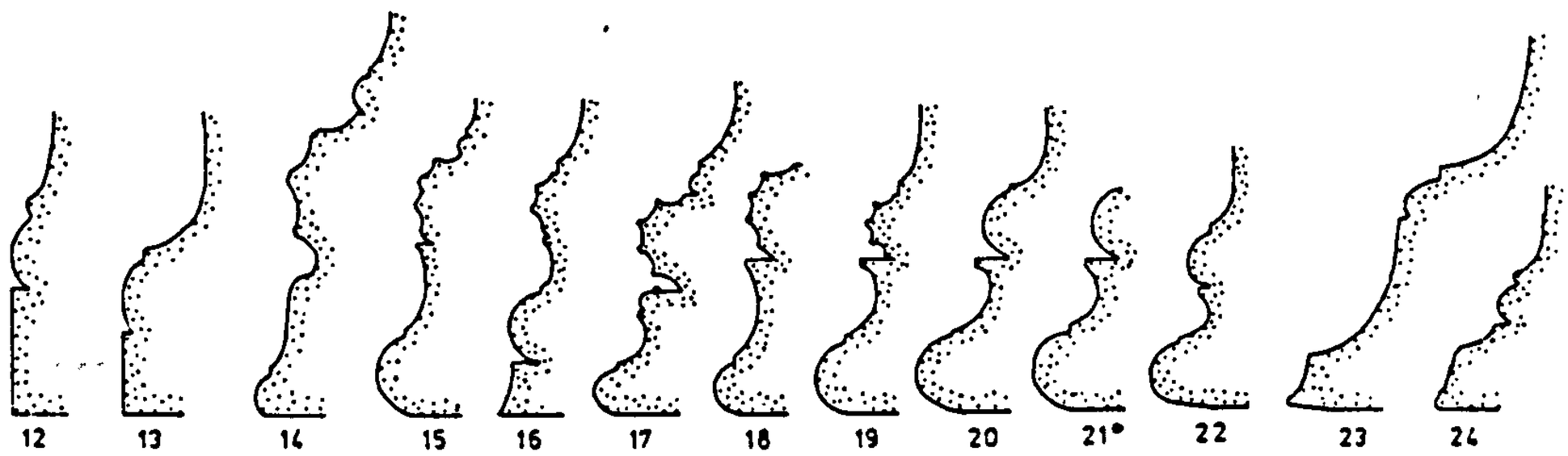
(a) (b) (c)

Ill. 2-6 Ionic capitals compared; (a) "Aeolic" capital, early sixth century (source: Lawrence, p. 130); (b) capital from the first temple of Artemis at Ephesus, c. 560 B.C. (c) capital from the inner colonade of the temple of Apollo at Bassae, c. 450-425 B.C. (source: Fletcher, pp. 226, 224).

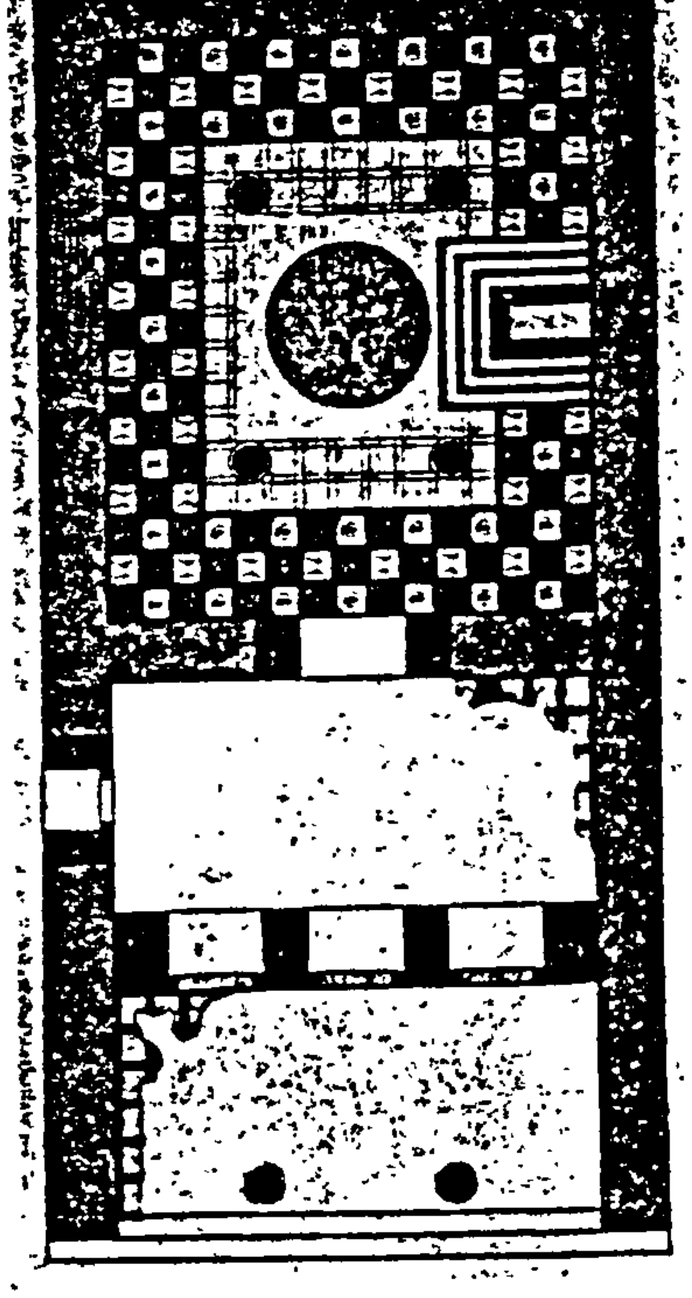


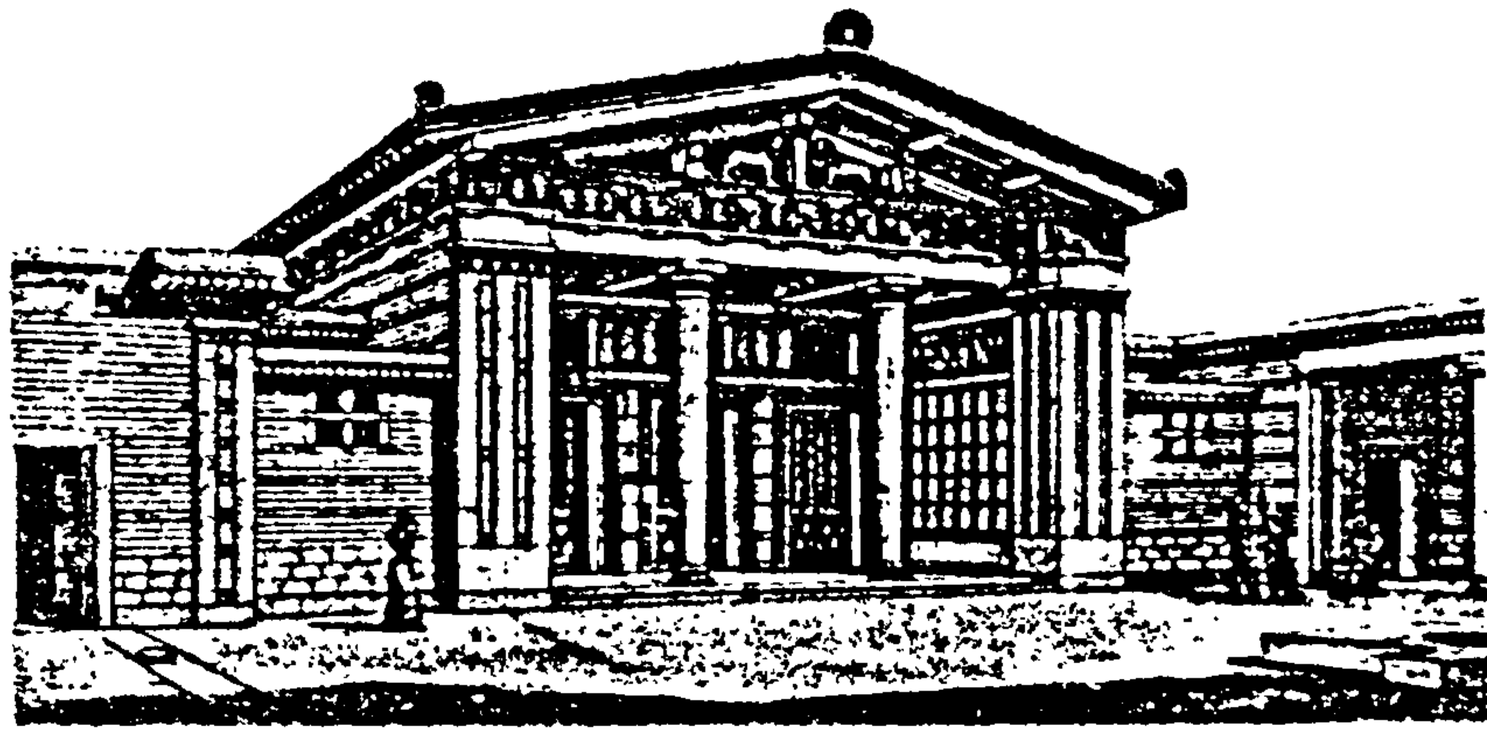
Ill. 2-7 Ionic bases at Ionia and the mainland compared; temple of Artemis at Ephesus, C. 560 B.C.; temple of Apollo at Bassae, c. 450-425 B.C. (source: Fletcher, pp. 226, 224).



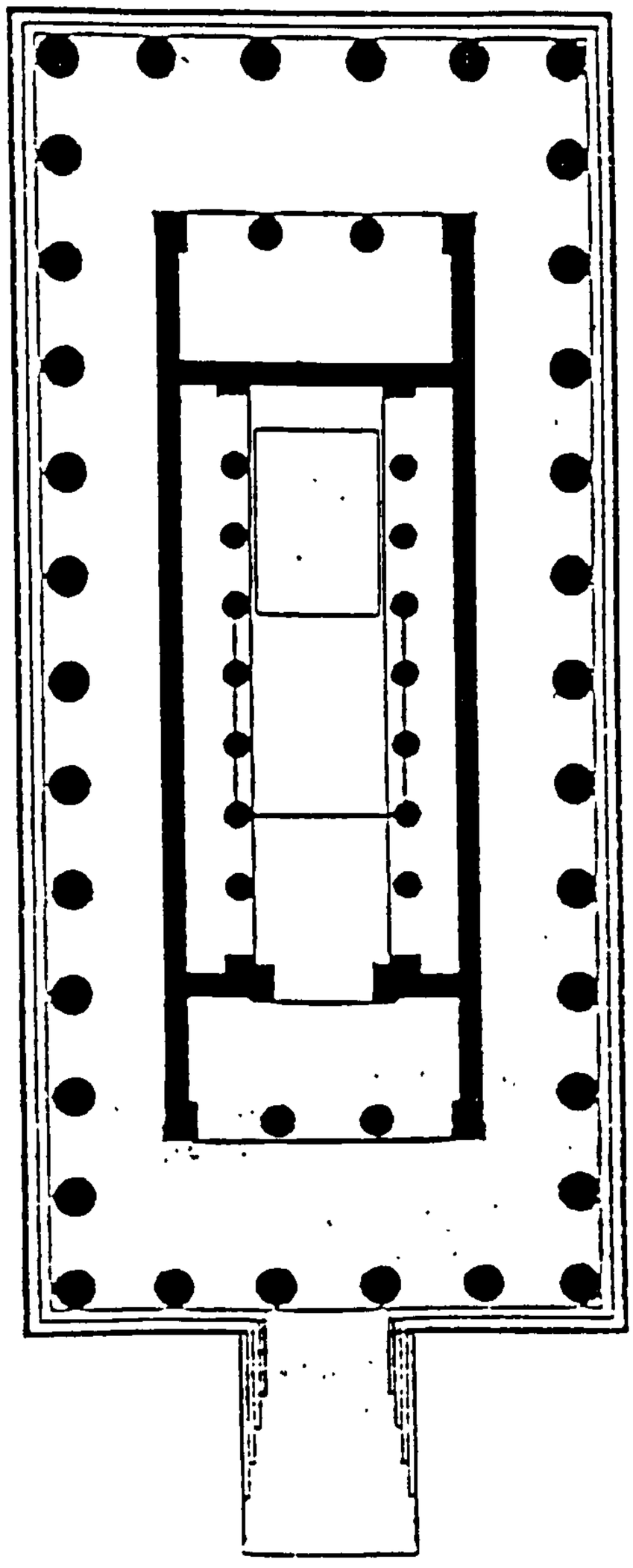


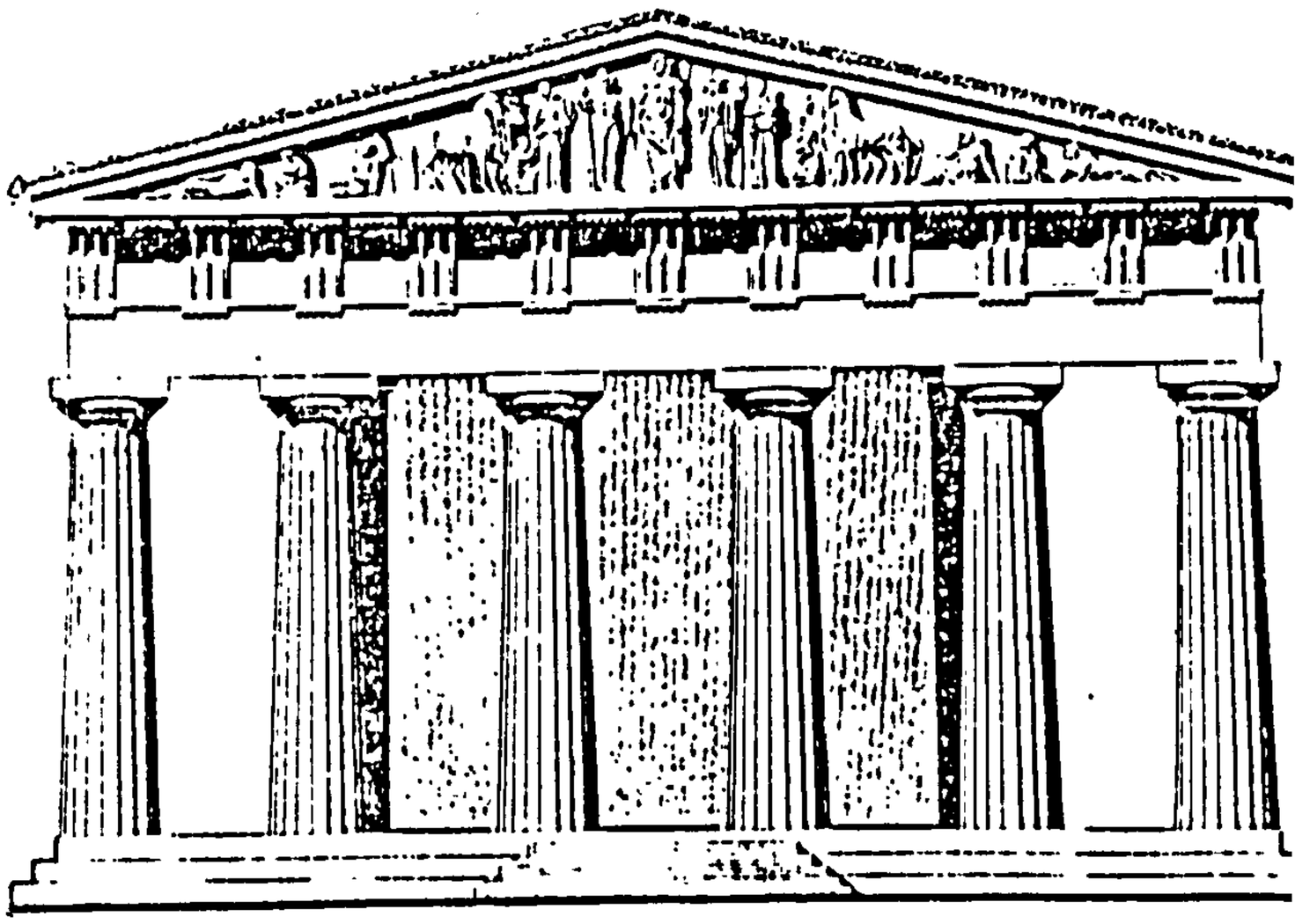
Ill. 2-8 Ionic base profiles scaled to suit a uniform lower column diameter (* indicates diameter estimated, Pl. indicates square plinth): 1 Naxian Column, Delphi, c. 570 B.C.; 2 third temple of Hera at Samos, c. 560 B.C.; 3 fourth temple of Hera at Samos, c. 530 B.C.; 4 the same, Hellenistic phase; 5 Delos, early fifth century; 6, 7 Managros, Chios, second half of sixth century; 8 Athens, Akropolis, sixth century; 9 archaic temple of Artemis at Ephesos, c. 560 B.C.; 10 archaic temple of Artemis, Magnesia, sixth century; 11 Klazomenian Tresury at Delphi, c. 540 B.C.; 12 temple of Athena at Paestum, c. 510 B.C.; 13 Stoa I at Kalauria, c. 420 B.C.; 14 Stoa of Athenians at Delphi, c. 475 B.C.; 15 temple by the Ilissos at Athens, c. 450 B.C.; 16 Propylaia at Athens, 437-432 B.C.; 17 Agora columns, Athens, c. 450-430 B.C.; 18 temple of Nike at Athens, c. 425 B.C.; 19, 20 north and east porches of the Erechtheion at Athens, c. 420-415 B.C.; 21 West Stoa of the Asklepieion at Athens, fourth century; 22 Tholos at Epidauros, c. 350-330 B.C.; 23, 24 temple of Apollo at Bassae, c. 430-400 B.C. (source: Coulton, pp. 100-101).





Ill. 2-9 Plan and restored elevation of the megaron at Tiryns (source: Dinsmoor, Pl. X).





Ill. 2-10 Plan and elevation of the temple of Zeus at Olympia [sources: Coulton, p. 112(plan); Fletcher, p. 214(elevation)].

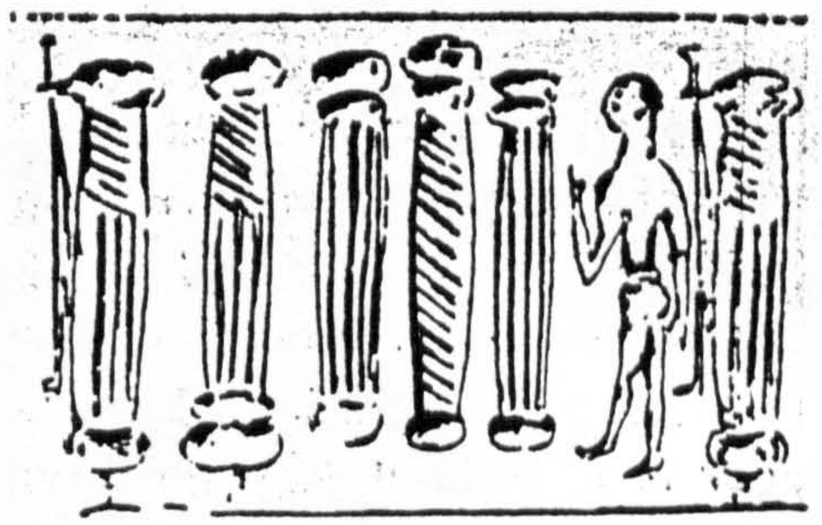
(a)

(b)

Ill. 2-11 Archaic sculpture at Attica (abstraction), compared to that at Cyprus (naturalistic representation) [sources: (a) photo by author (at Samos museum), (b) Carpenter, Pl. IV.

Ill. 2-12 Gold ring from Vaphio, depicting a tree-cult scene (source: Nilsson, p. 275).

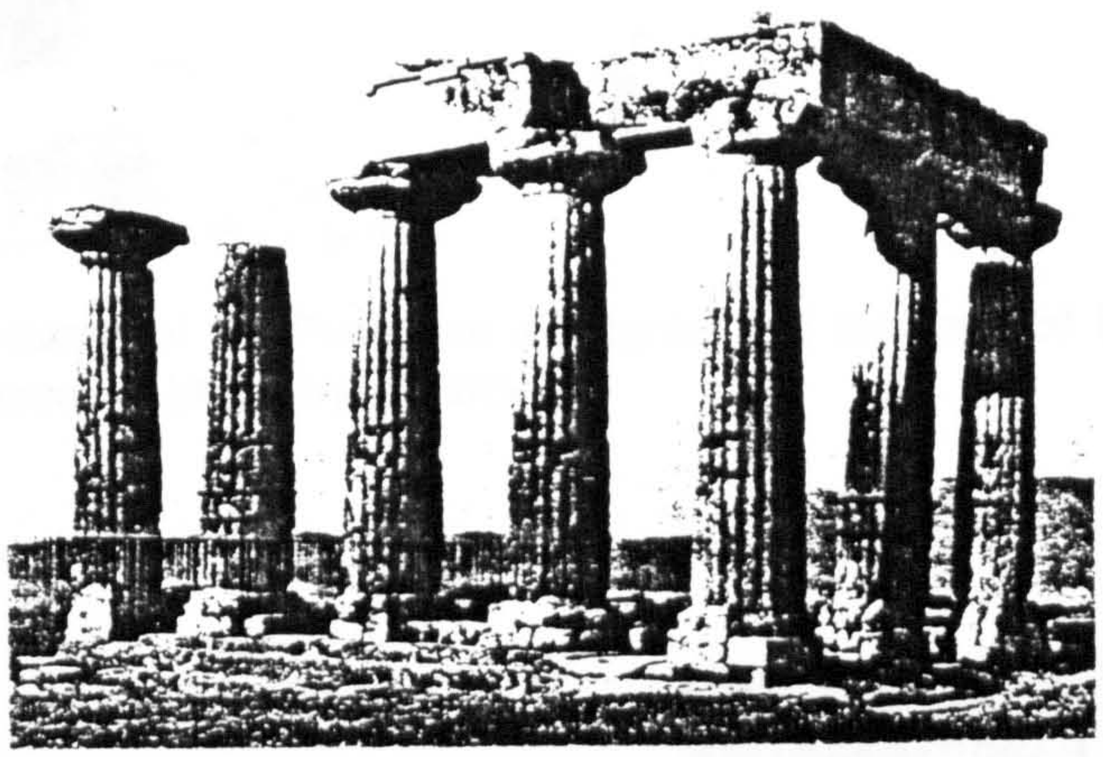
(a)



(b)

Ill. 2-13 Sacred columns from Mycenae, moulded on (a) a gold ring, and (b) a seal cylinder (source: Nilsson, pp. 250, 257).

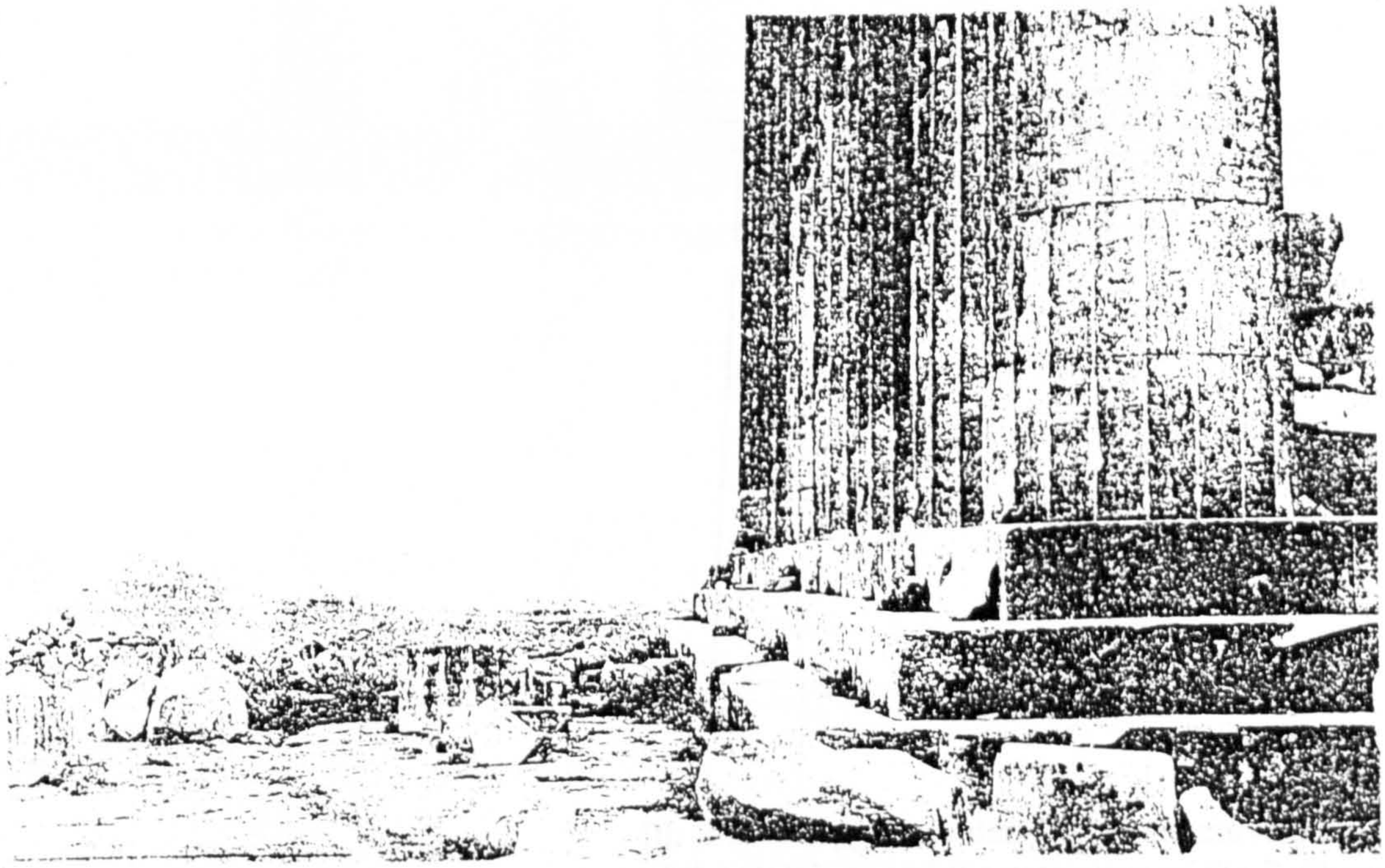
Ill. 2-14 Basilica at Paestum, c. 530 B.C. (source: Goodyear, p. 135).



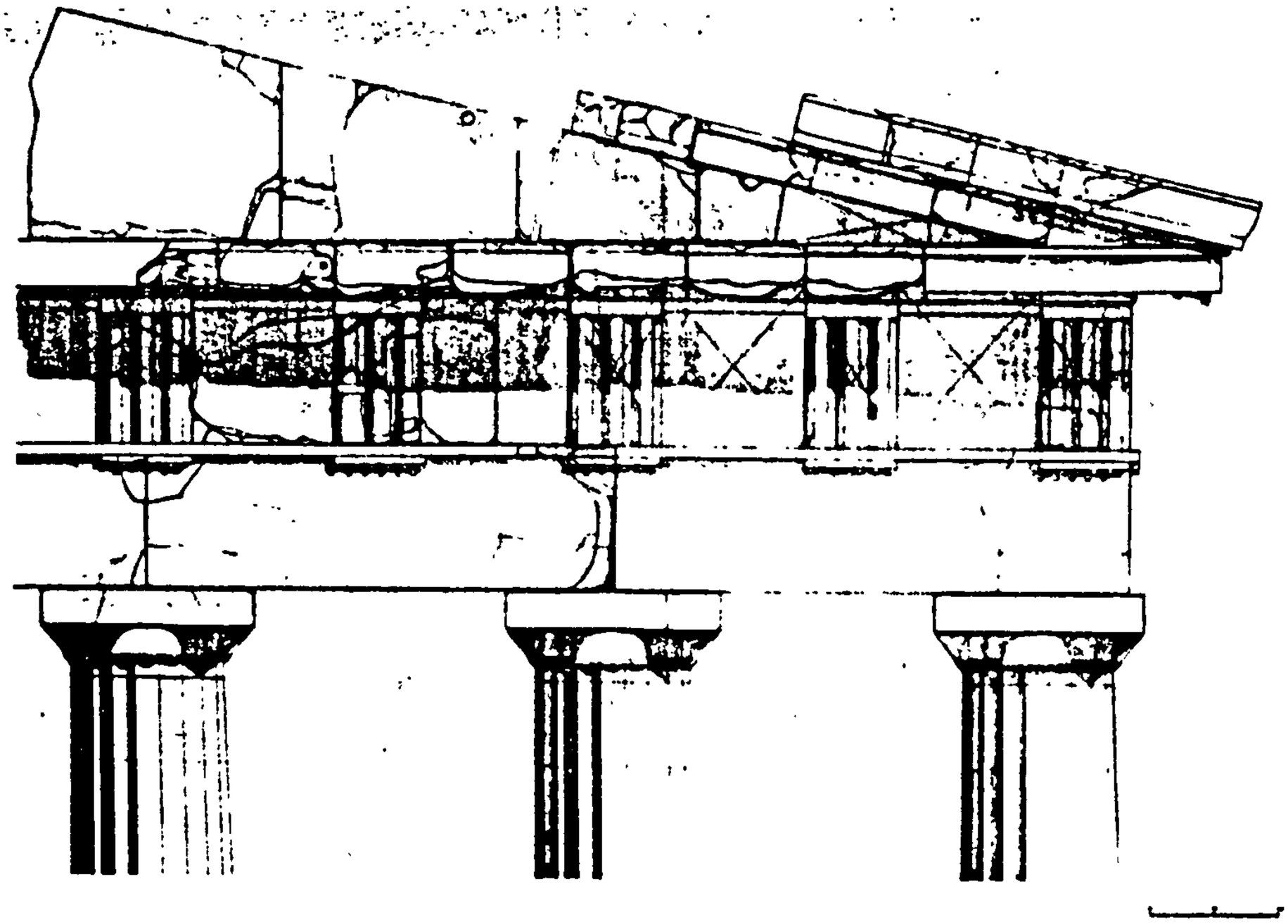
Ill. 2-15 Apollo at Corinth, c. 540 B.C. (source: Dinsmoor, Pl. XXII).

Ill. 2-16 Aphaea at Aegina, c. 490 B.C. (source: photo by author).

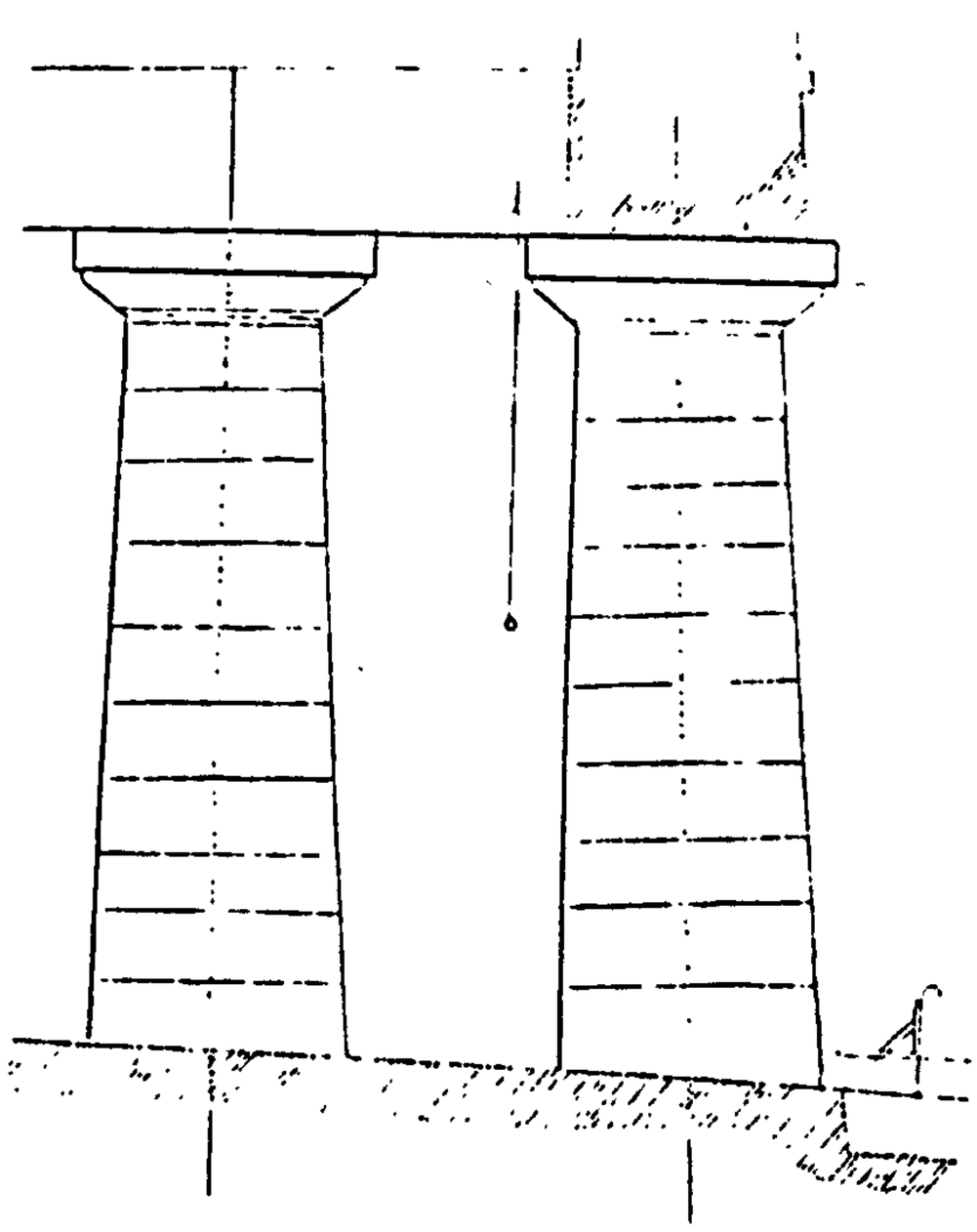
Ill. 2-17 The columns of the Parthenon are lighter and less tapered in comparison to earlier temples (source: photo by author).



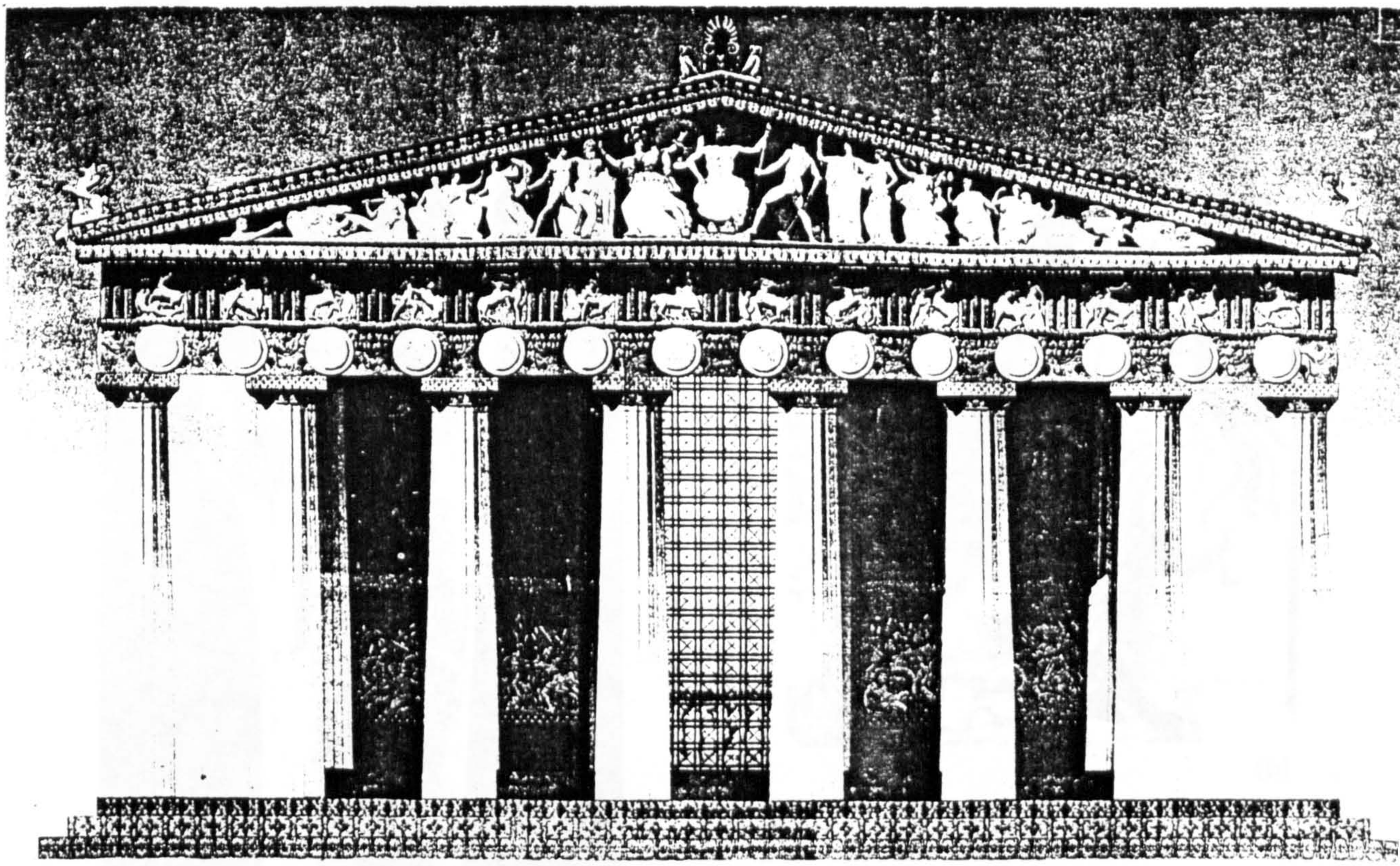
Ill. 2-18 The curvature of the stylobate at the East front of the Parthenon (source: Goodyear, p. 15).



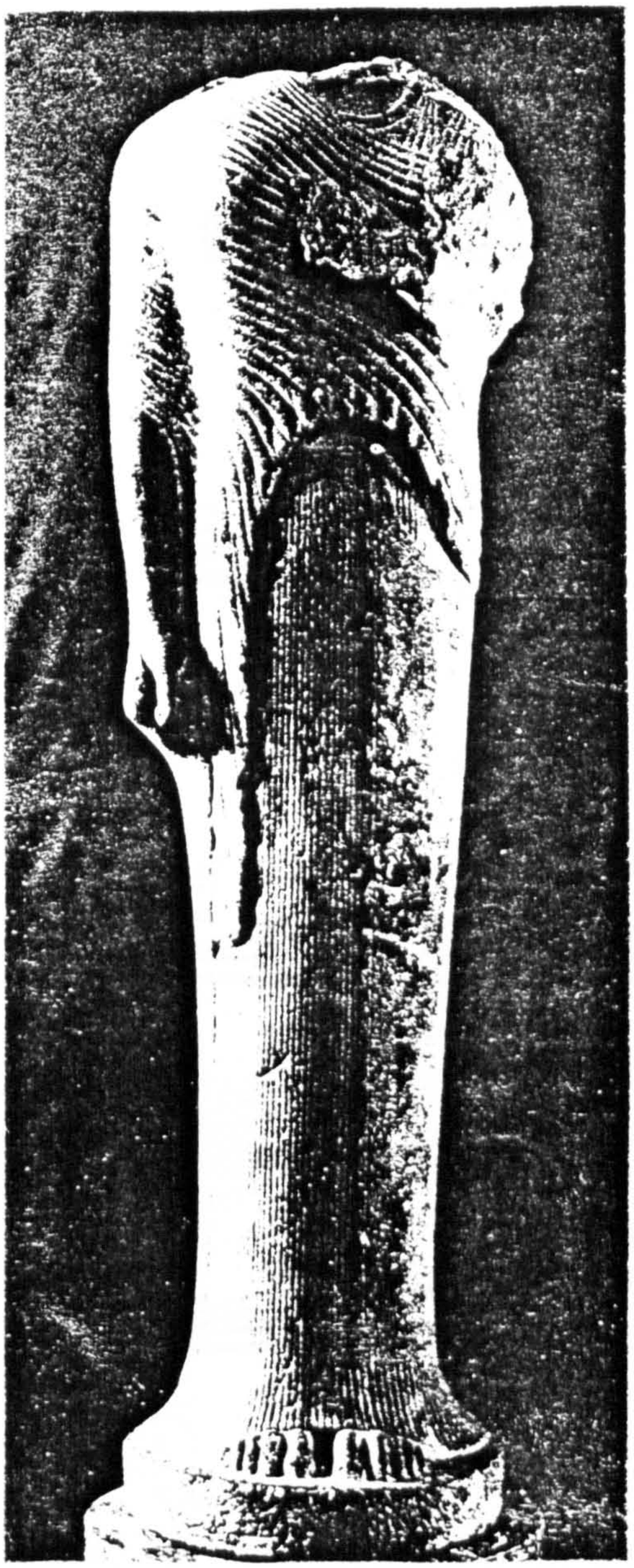
Ill. 2-19 Curvature of the architrave of the Parthenon (source: The Acropolis of Athens, Pl. III.12).



Ill. 2-20 Exaggerated drawing of the curvatures of the stylobate and the architrave of the Parthenon, and the setting of the drums of the shafts (source: Goodyear, Fig. 9, p. 17; originally published in: Penrose, Fig. 3, p. 36).



Ill. 2-21 The culmination of formal perfection represented by the Parthenon (source: Paris-Rome-Athenes, p. 236).



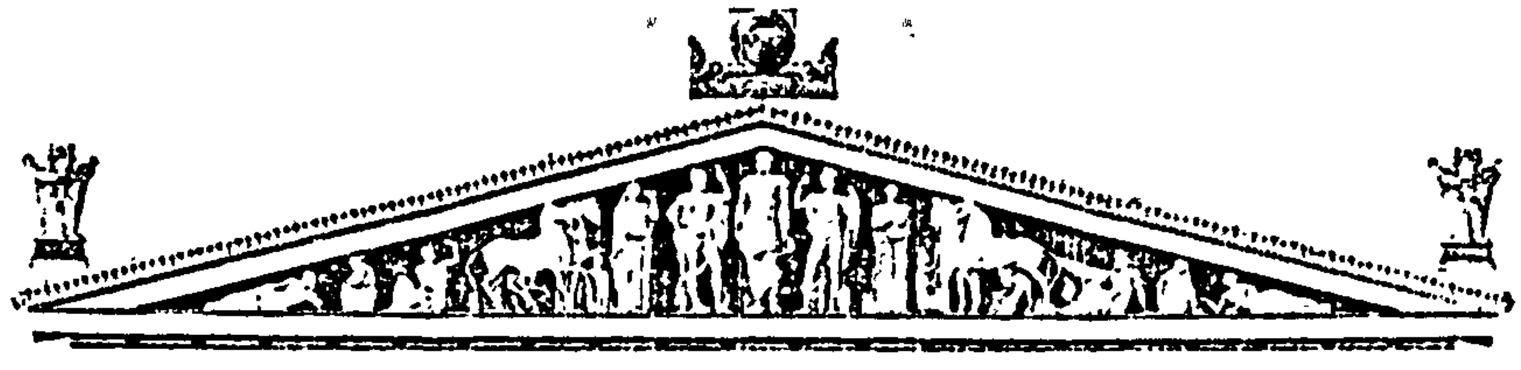
(a)

(b)

Ill. 2-22 The blowing away from (a) the archaic austerity and simplicity; (b) representation of a draped figure in motion: from the east architrave of the Parthenon (sources: (a) Kyrieleis, p. 58; (b) Carpenter, Pl. XXIII).

(a)

(b)

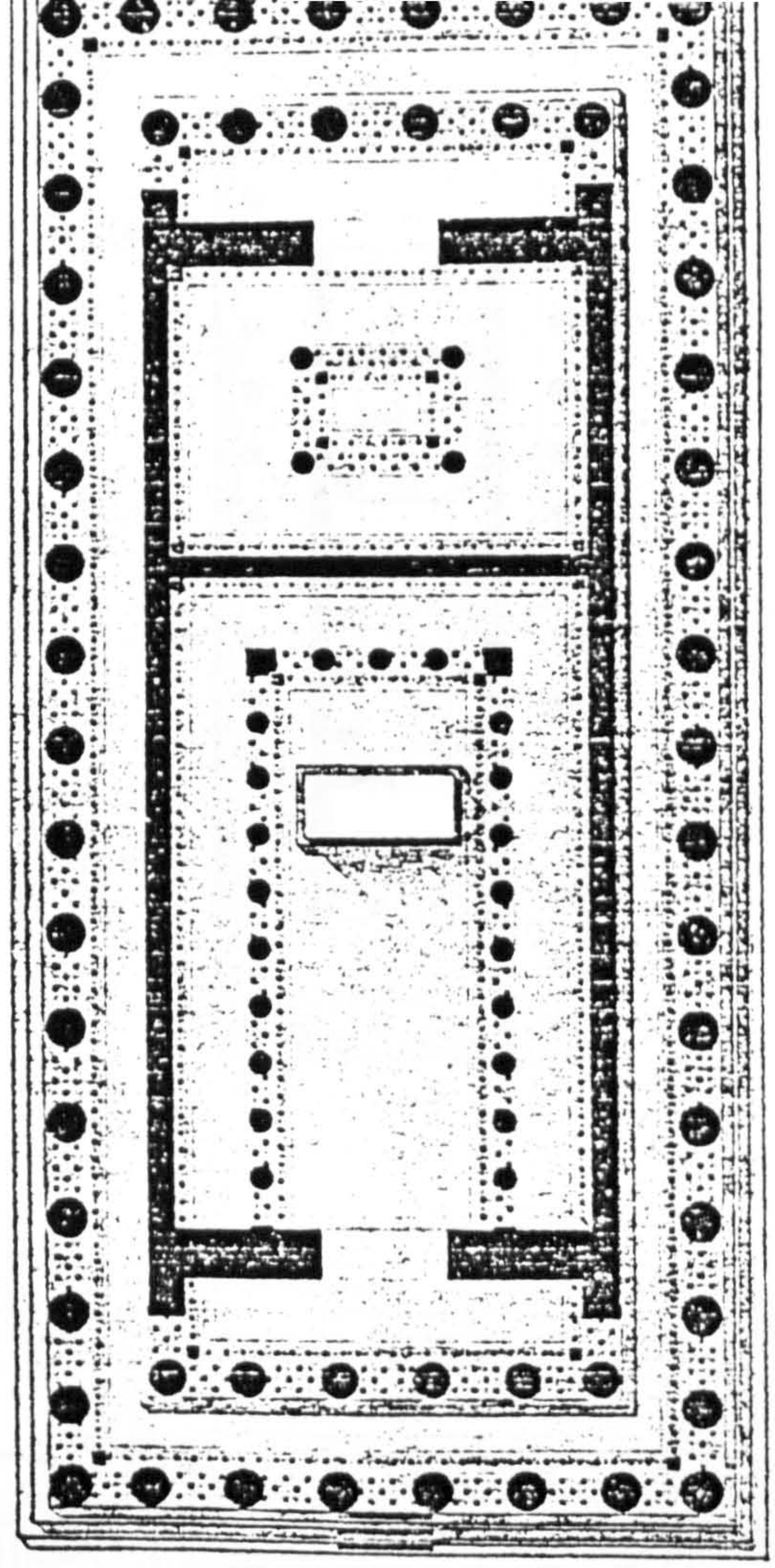


(c)

(d)

Ill. 2-23 Pediments showing the evolution of their sculpture; (a) from the temple of Artemis at Kerkyra, c. 590 B.C. (source: Coulton, p. 42); (b) from the temple of Aphaea at Aegina, c. 490 B.C. (source: Fletcher, p. 211); (c) from the temple of Zeus at Olympia, c. 470-457 B.C. (source: Fletcher, p. 214); (d) from the Parthenon at Athens, c. 447-432 B.C. (source: Paris-Rome-Athenes, p. 165).

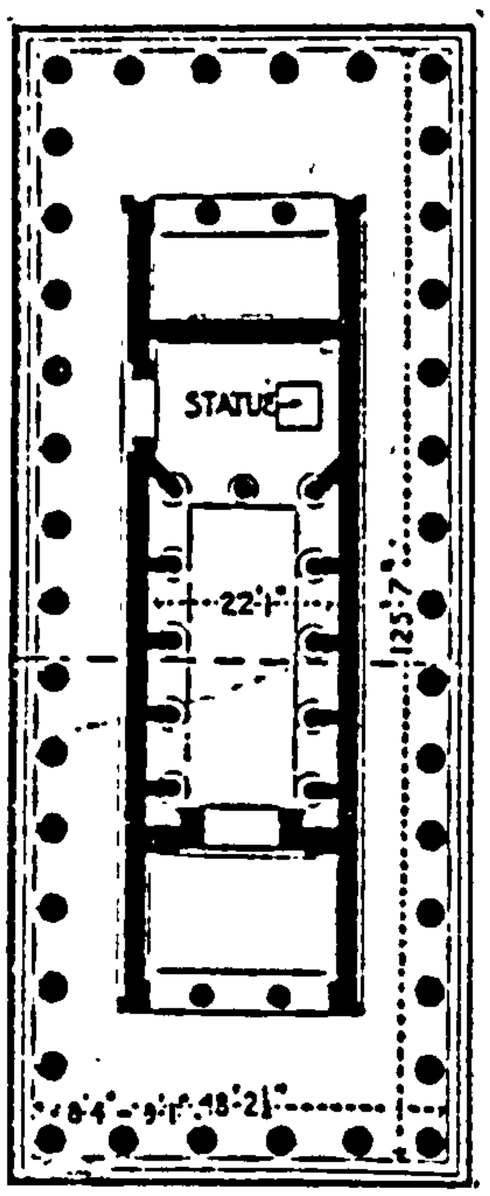
(a)



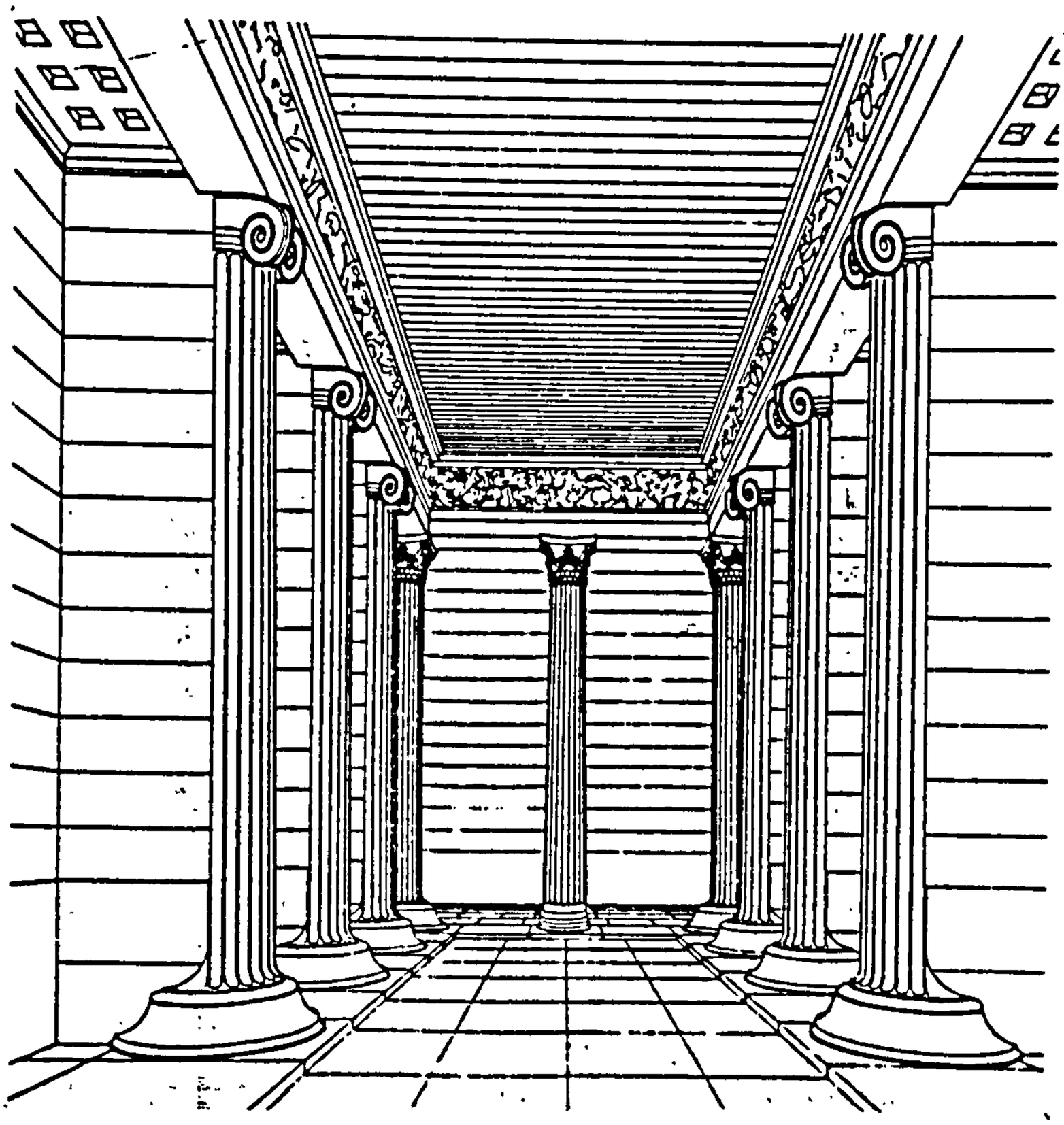
(b)

Ill. 2-24 The Parthenon at Athens; (a) plan, (b) interior (source: Paris-Rome-Athenes, pp. 231, 235).

(a)

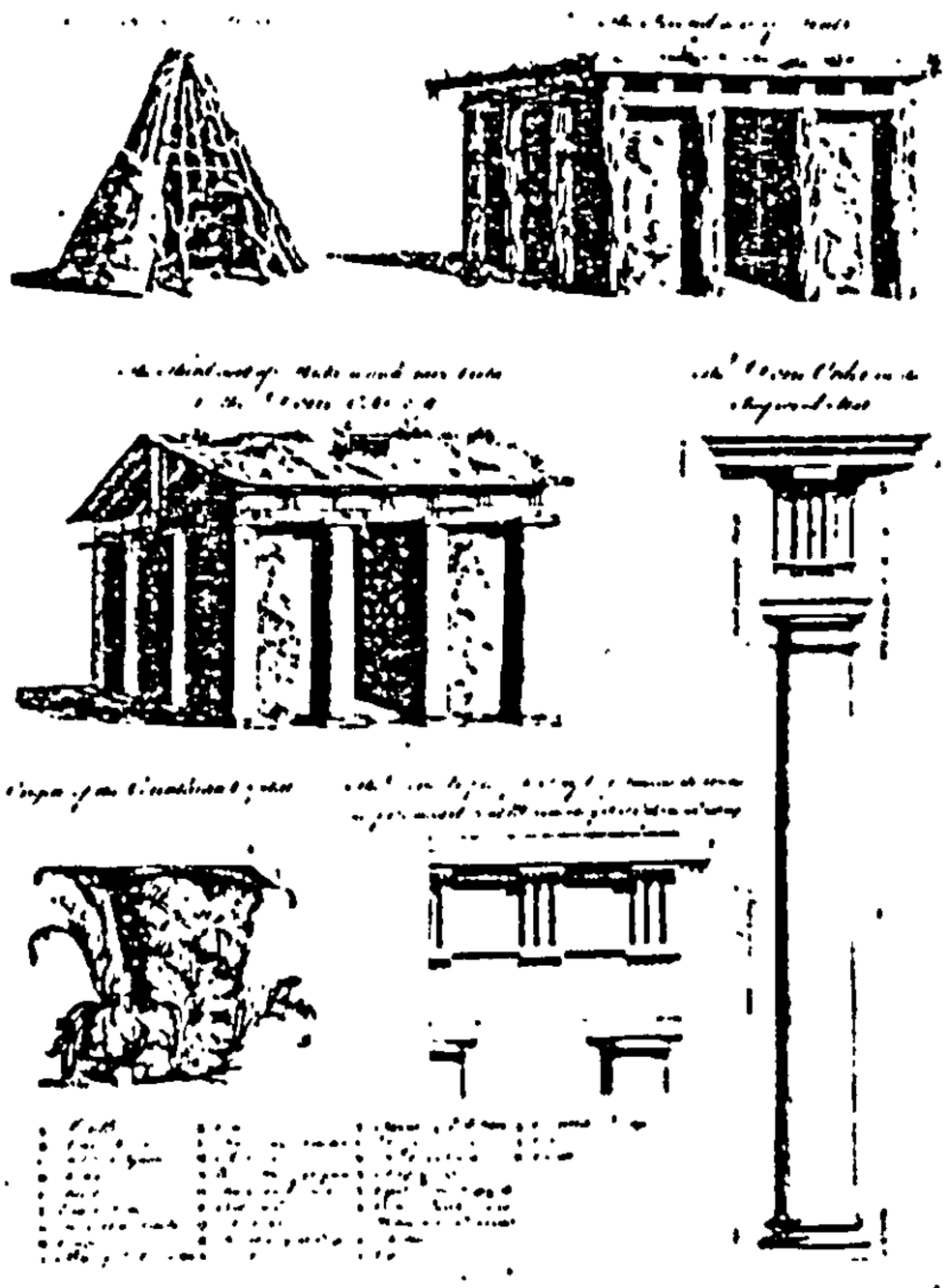


(b)



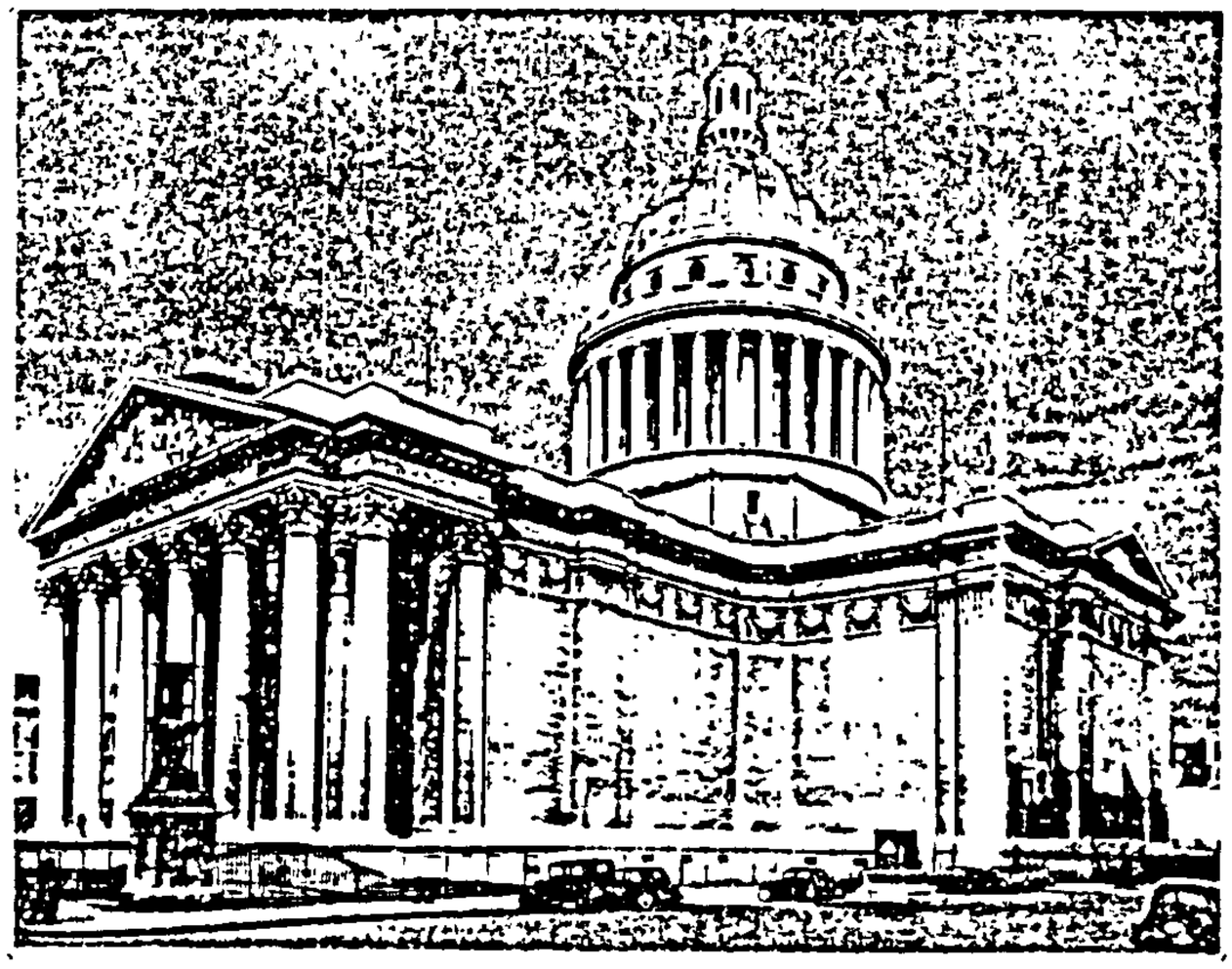
Ill. 2-25 The temple of Apollo at Bassae; (a) plan, (b) interior (sources: (a) Fletcher, p. 220; (b) Coulton, p. 116).

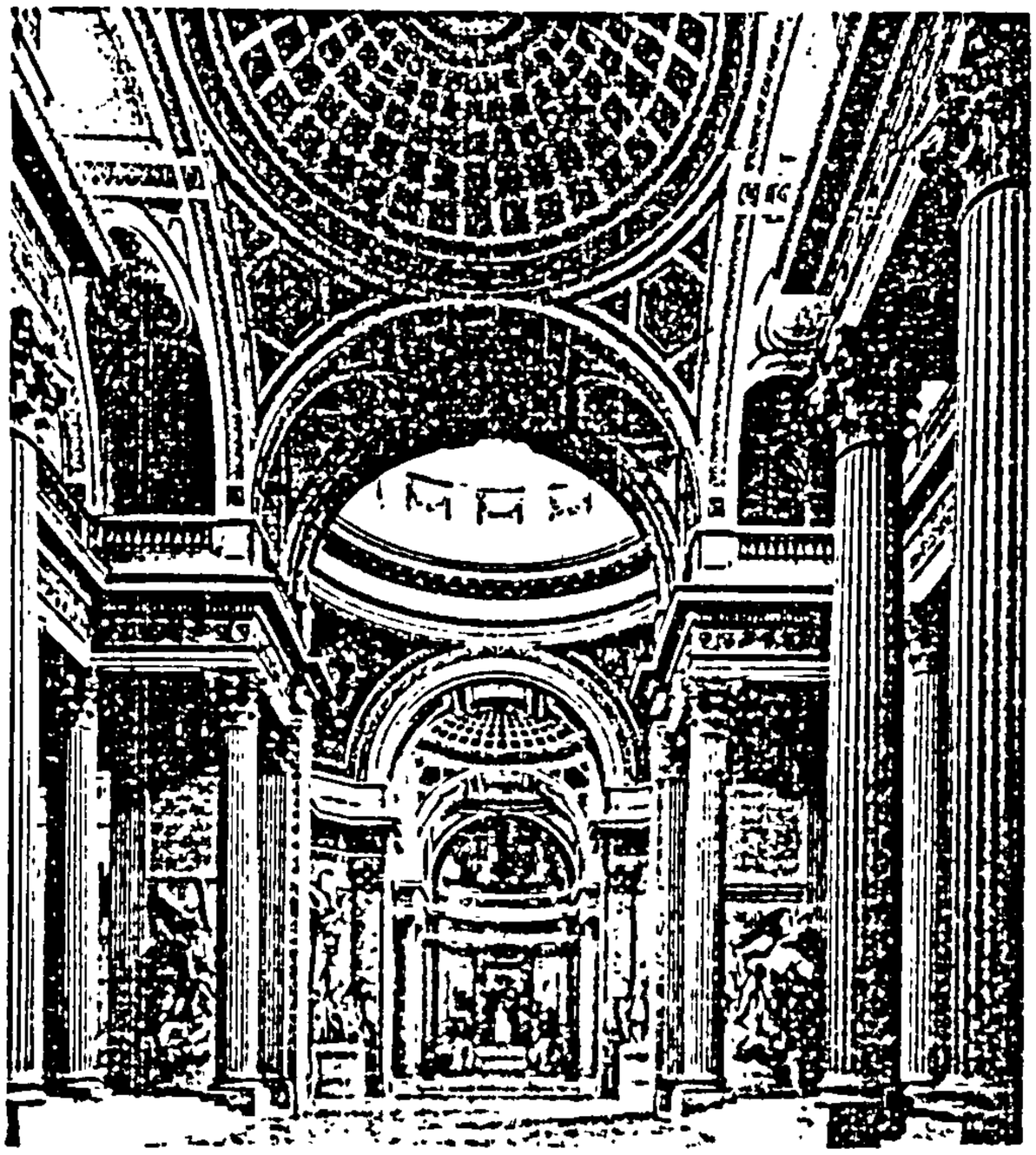
(a)



(b)

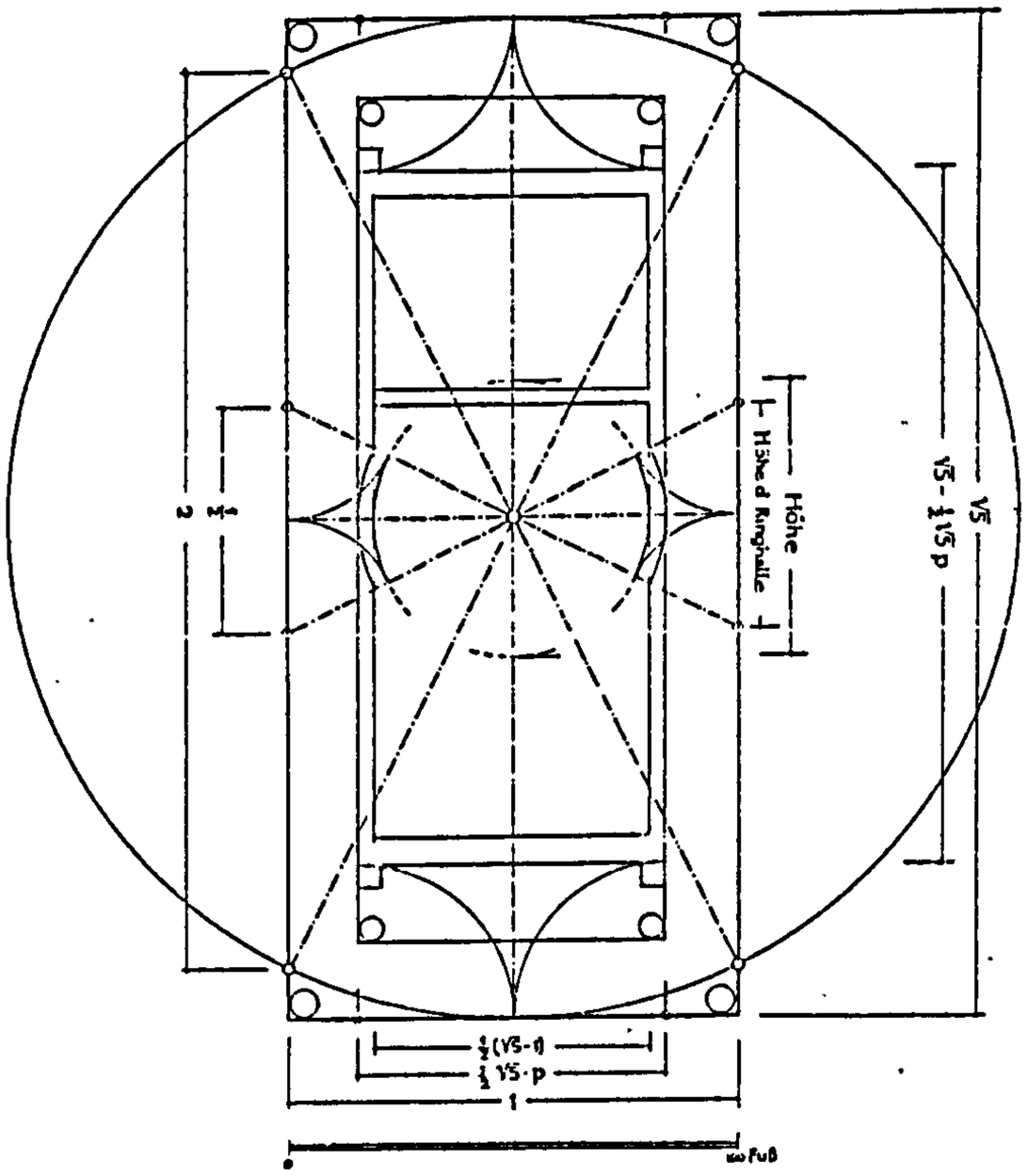
Ills 5-1 The attempt to discover the origins of architecture through a rational consideration of nature was an expression of the secularization of knowledge during the Enlightenment; (a) the "primitive hut" from the frontispiece of Laugier's *Essai sur l' Architecture*, 1753; (b) a hypothetical evolution of the Doric order from the primitive hut, from Sir William Chamber's "Treatise" of 1759 (source: Summerson, ills 91, 94).



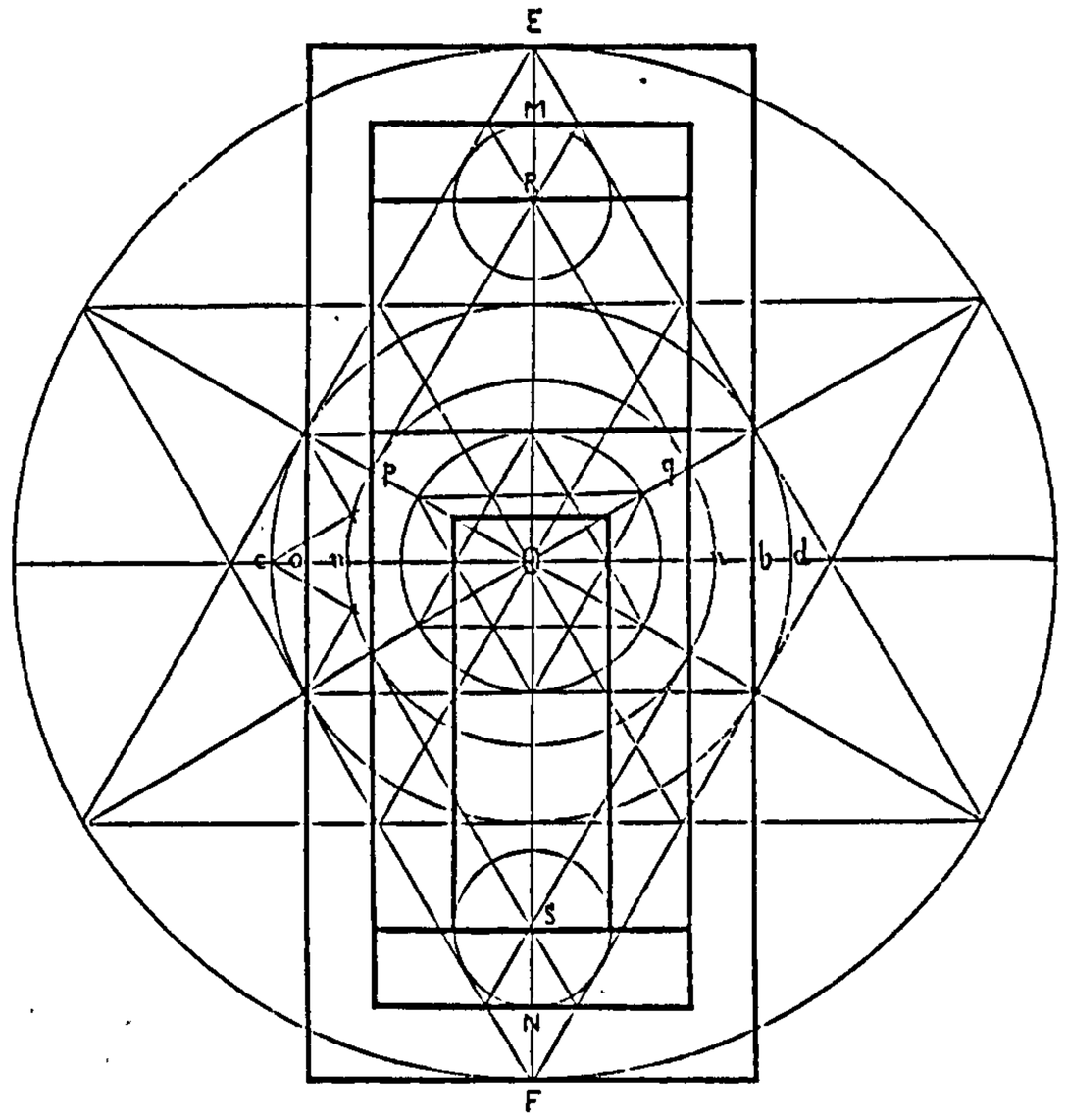


Ills 5-2 The first application of the new principles on a monumental building. The church of Ste-Genevieve (Pantheon), which began been built in Paris, in 1756. An organization of single load-bearing columns was attempted, though not quite achieved, by Soufflot (source: Summerson, ills 95, 96).

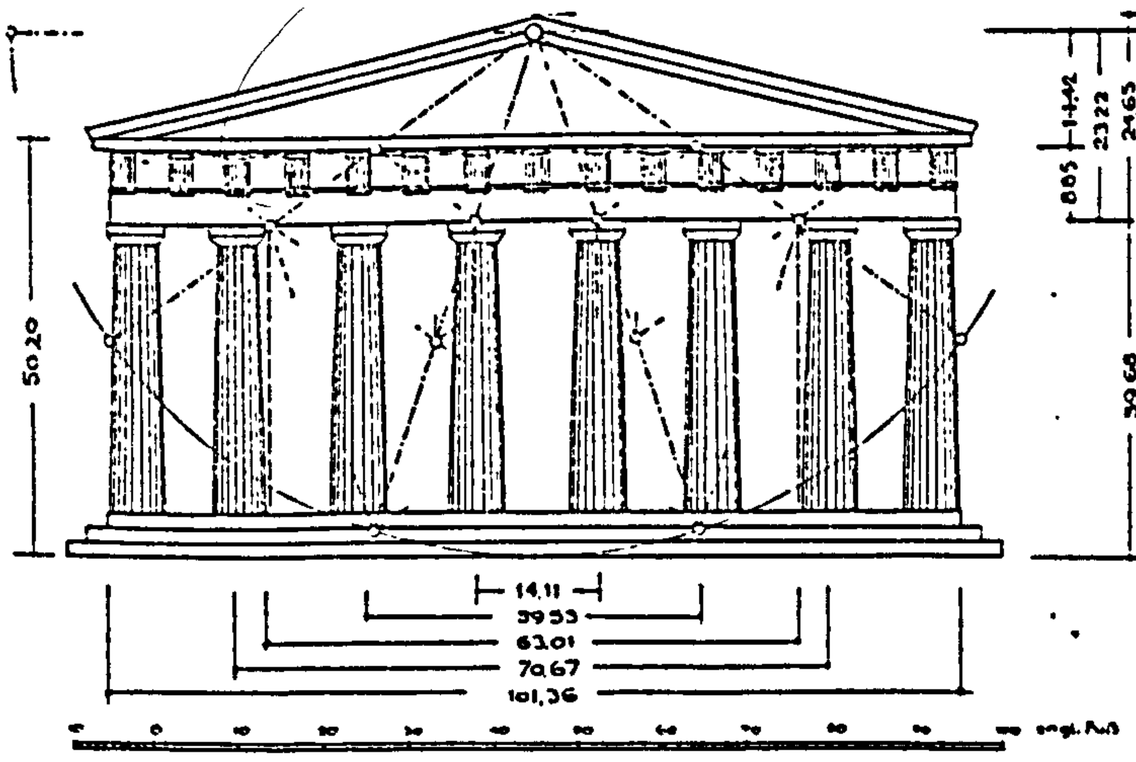
(a)

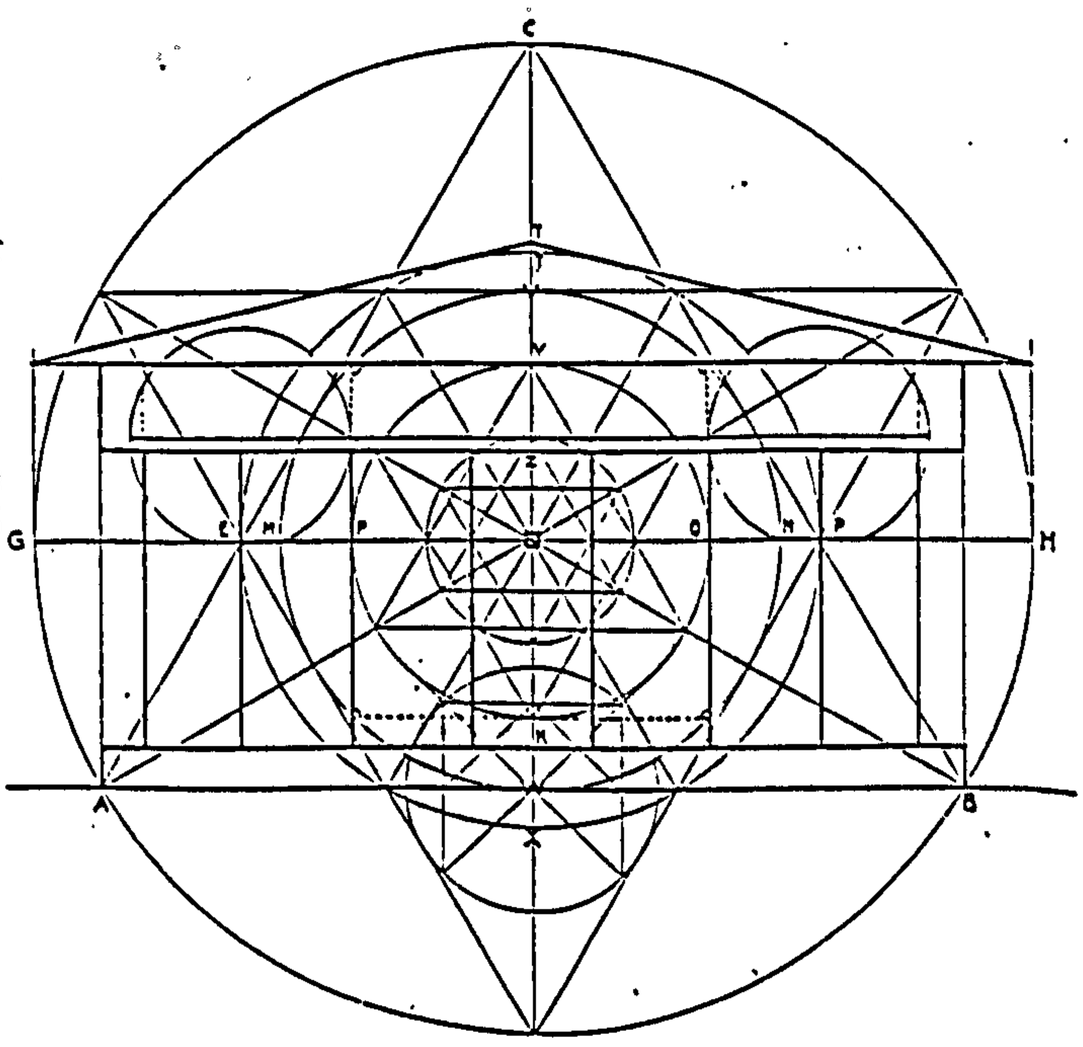


(b)

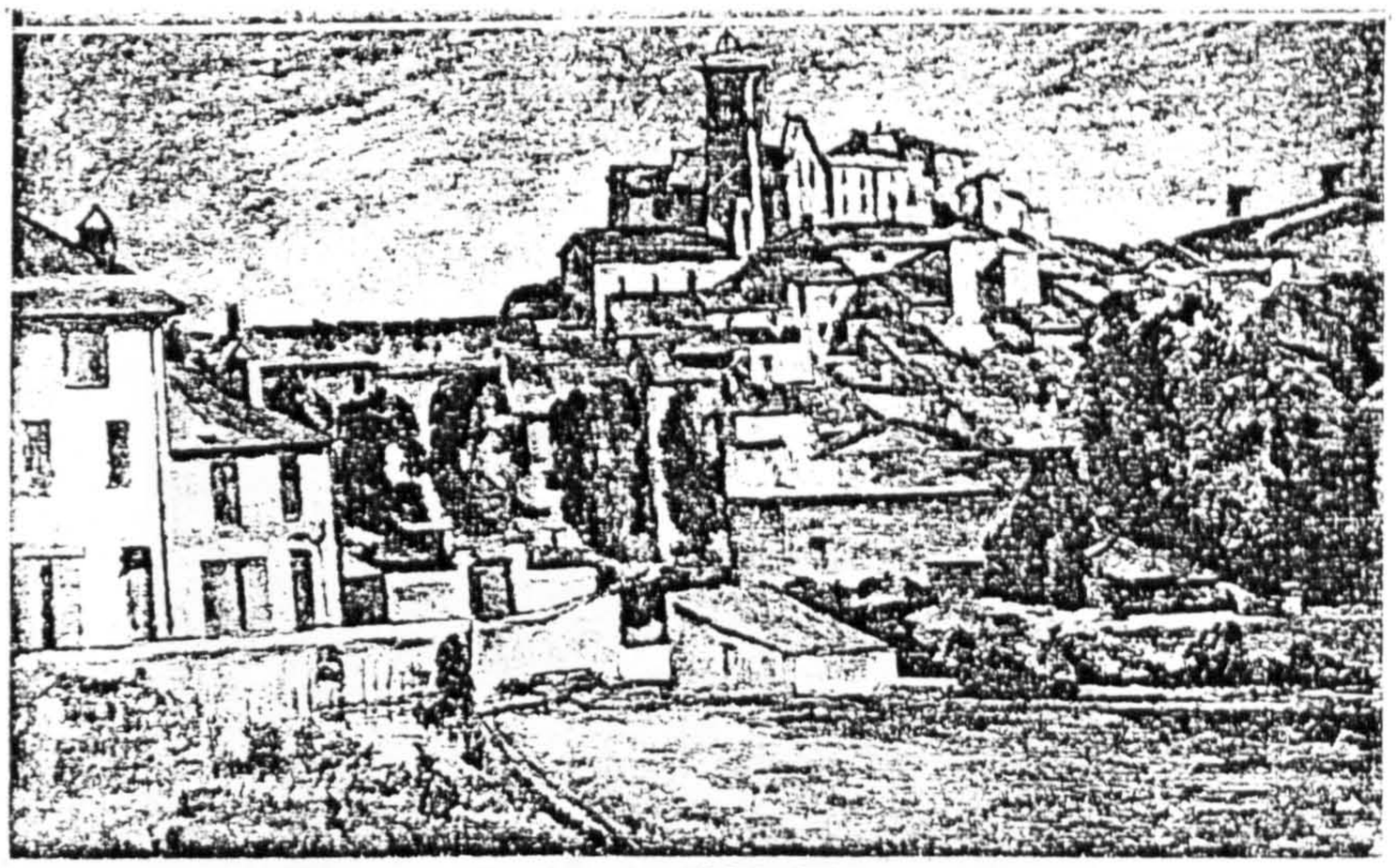


Der Parthenon.

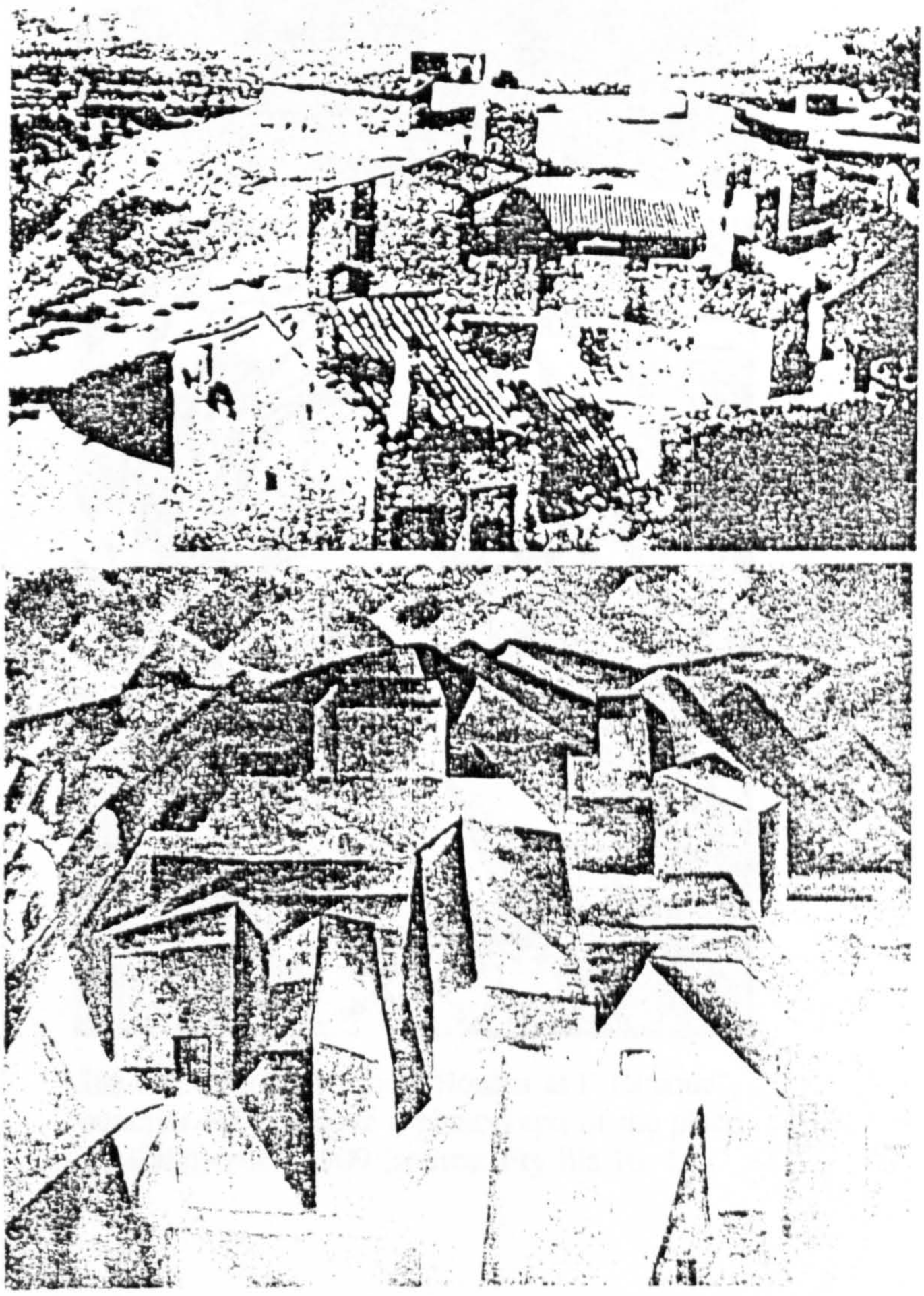




Ills 5-3 Parthenon, regulating lines; plan and elevation; (a) by Moessel, (b) by Wolff (sources: (a) Moessel, ills 8, 9; (b) Wolff, ills XIX, XX).

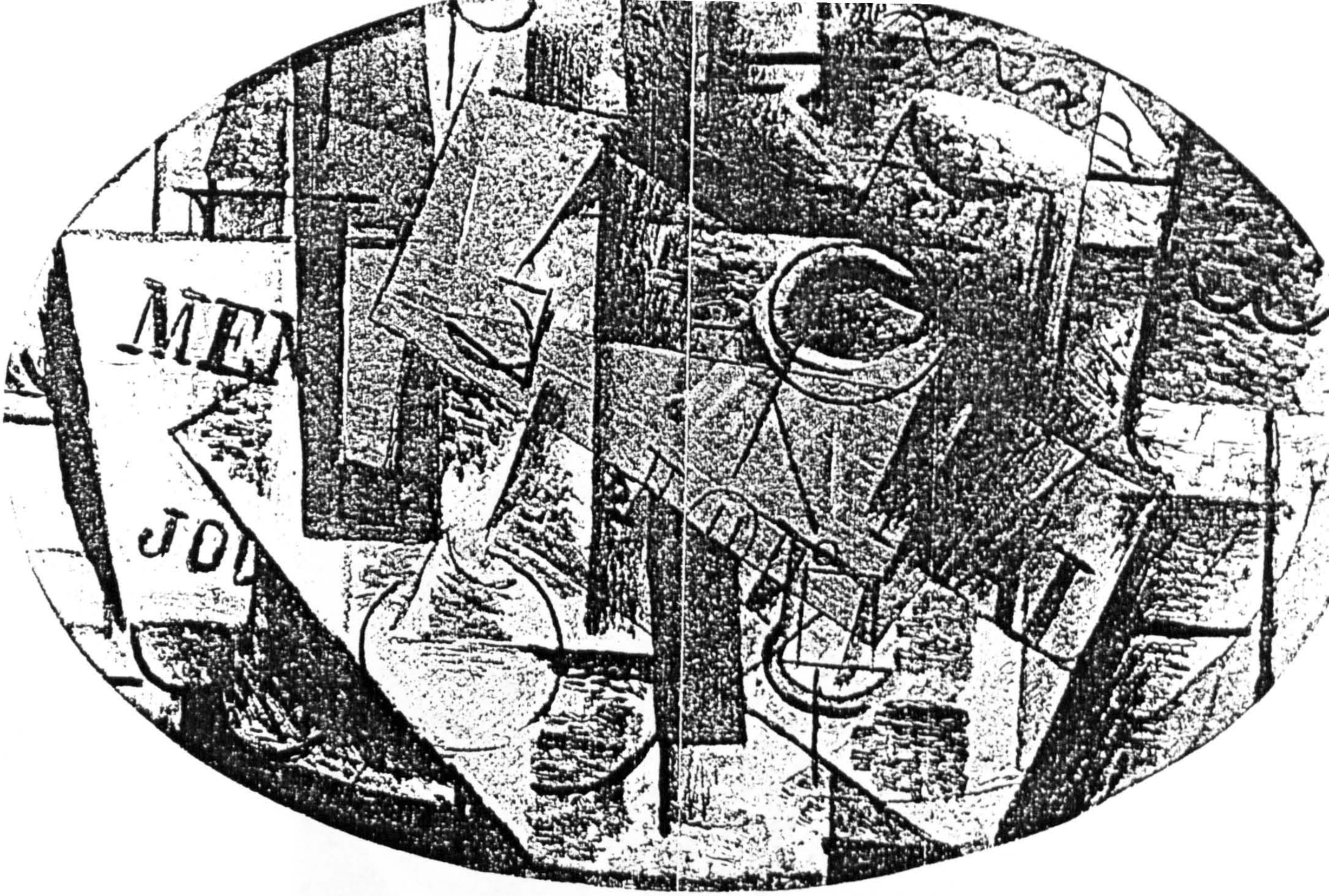


Ill. 5-4 Paul Cezanne, Gardanne, 1885-6 (source: Fry, ill. 26).

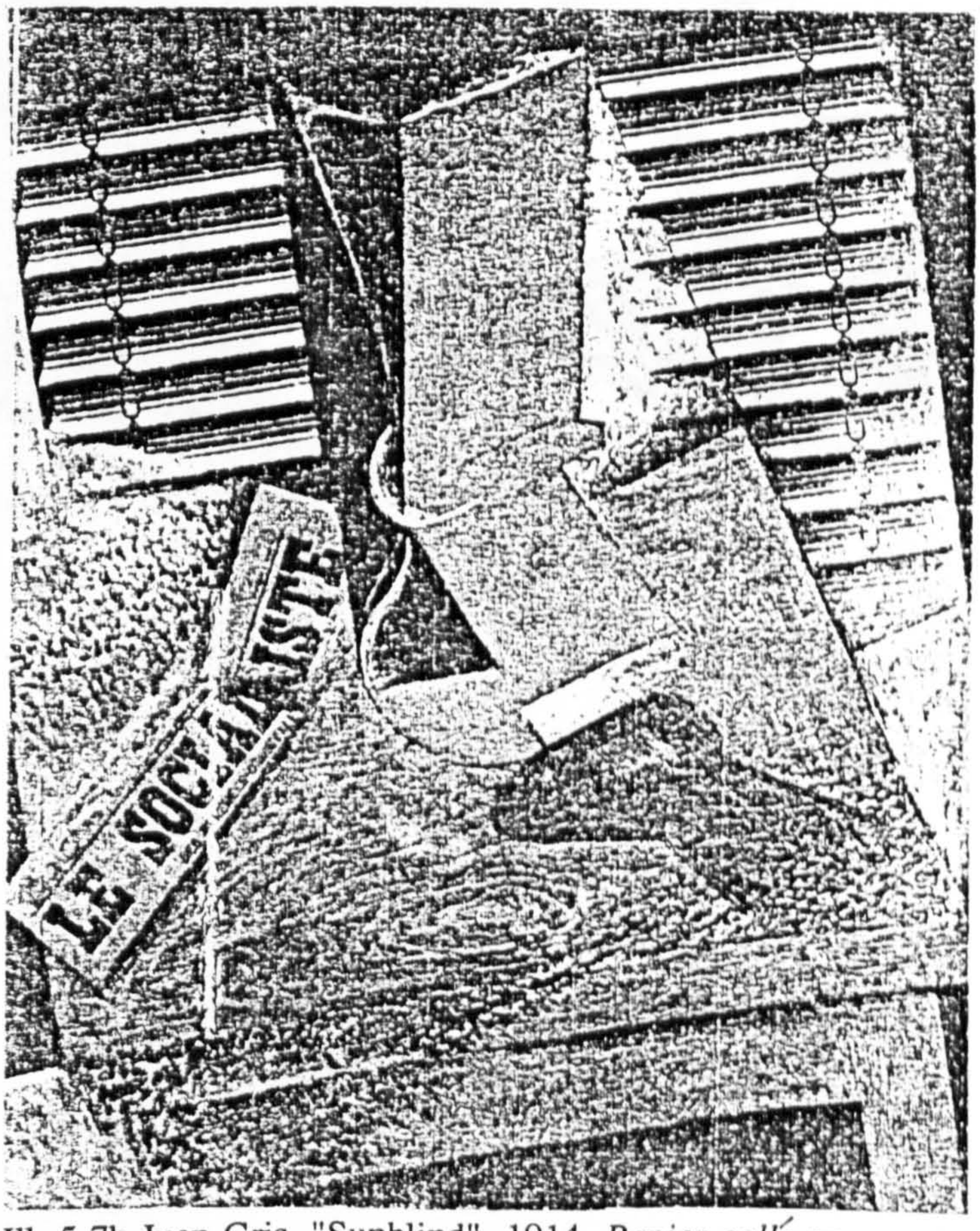


Ills 5-5 Pablo Picasso, "Houses on a Hill", Horta de San Juan, summer 1909. Above the place photographed by Picasso at the same time (source: Fry, ills 14, 15).

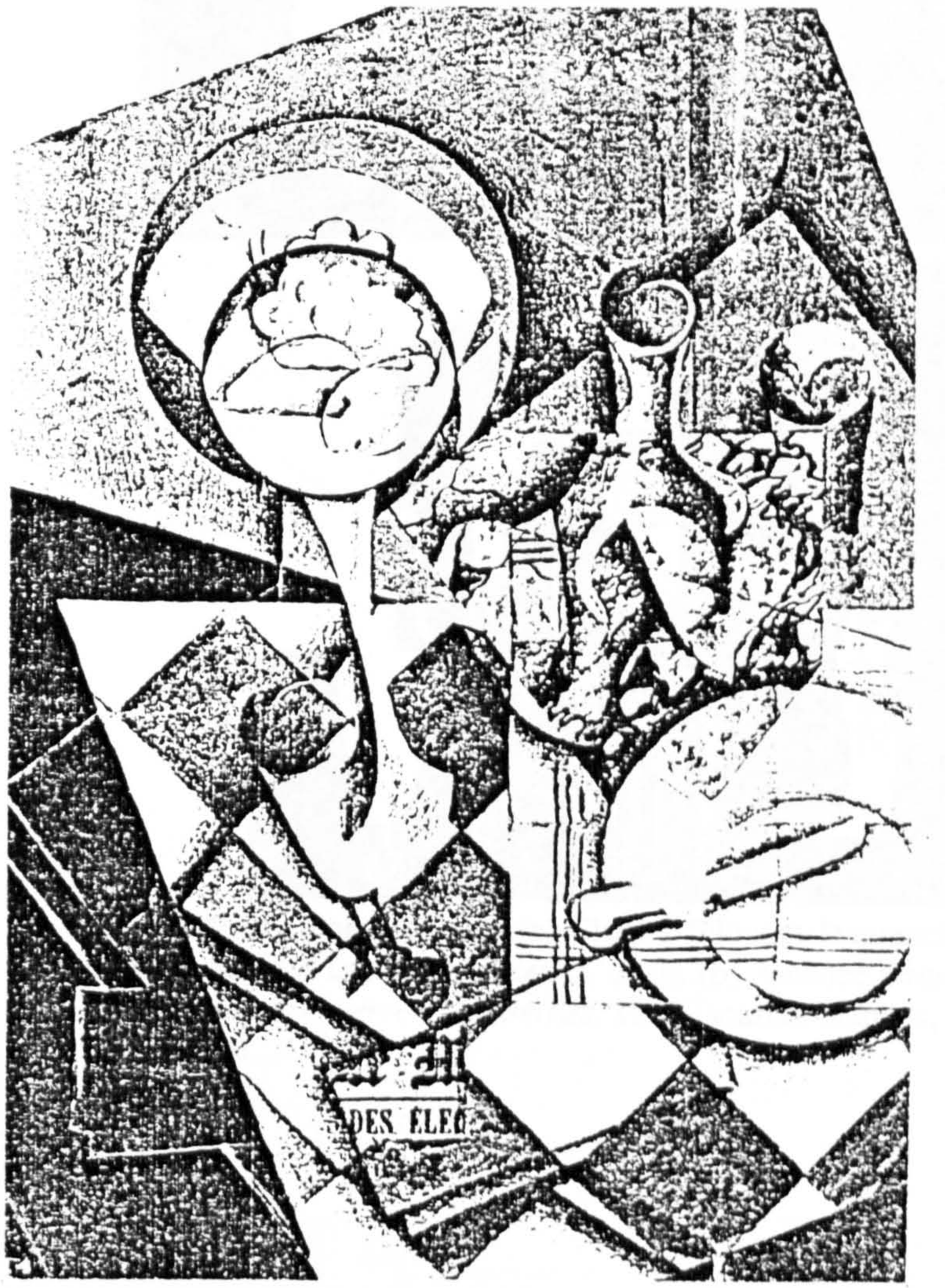
Ills 5-6 George Braque, "Houses at l' Estaque", summer 1908. Above a photograph of the place by Kahnweiler, 1909 (source: Fry ills 10, 11).



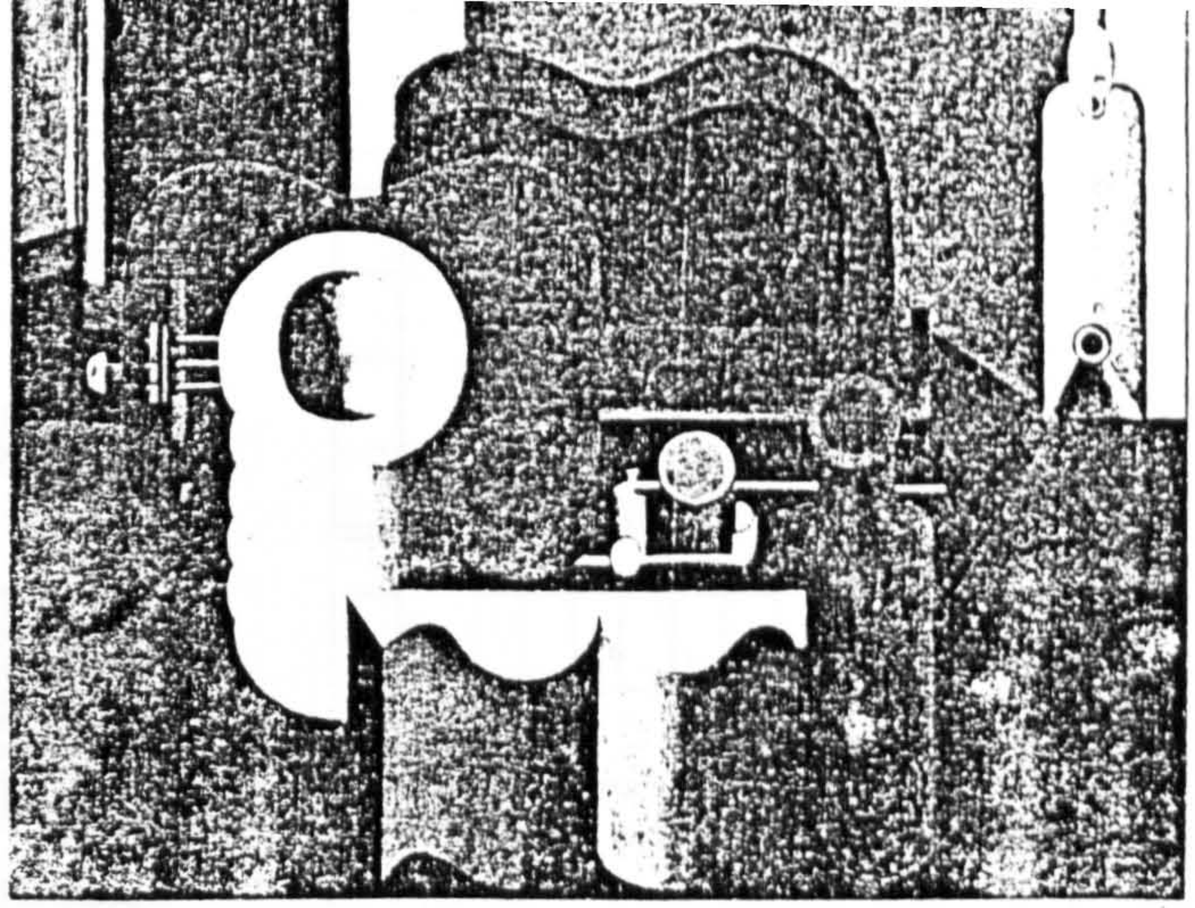
Ill. 5-7a George Braque, "Newspapers and Glass", 1913. Oil on canvas (source: Nash, ill. 17).



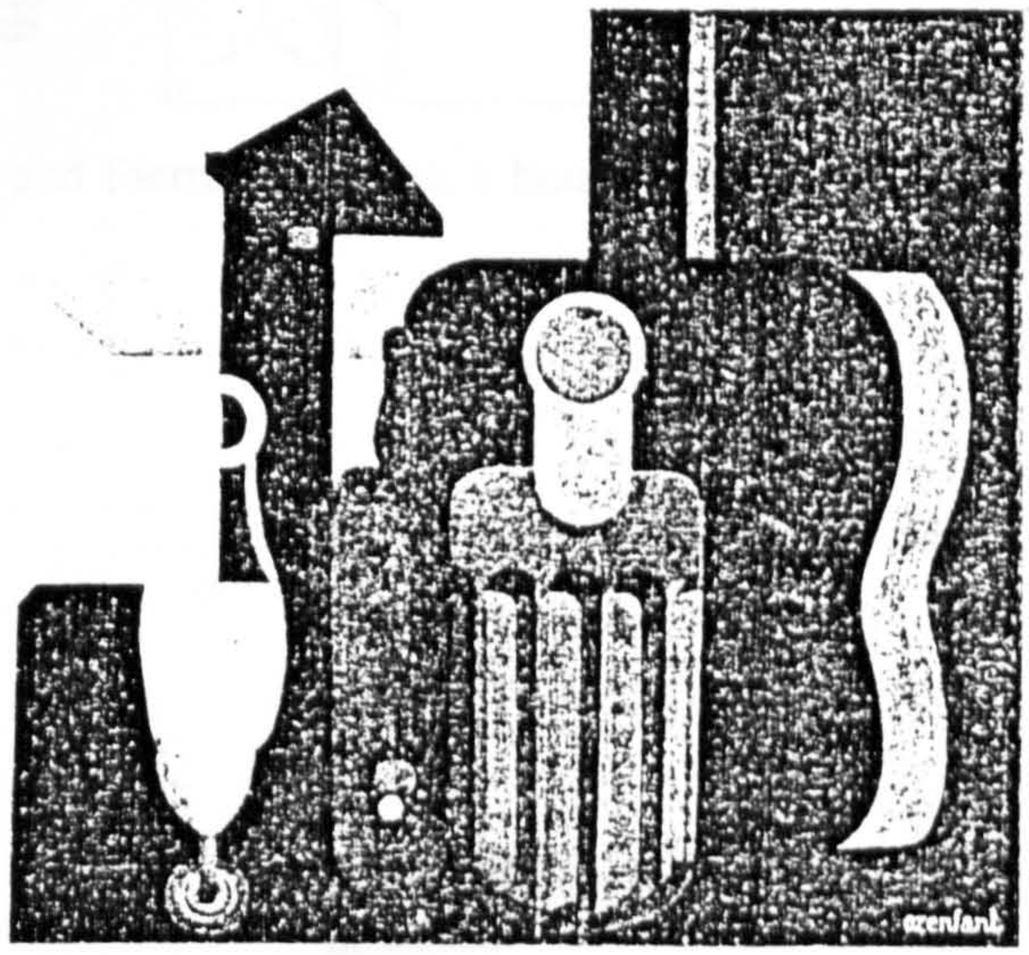
Ill. 5-7b Juan Gris, "Sunblind", 1914. *Papier collé* on canvas, with some heightening in charcoal (source: Nash, ill. 23).



Ill. 5-8 Juan Gris, "Still-life with Fruit and Bottle of Water", 1914. Collage (source: Nash, ill. 24).

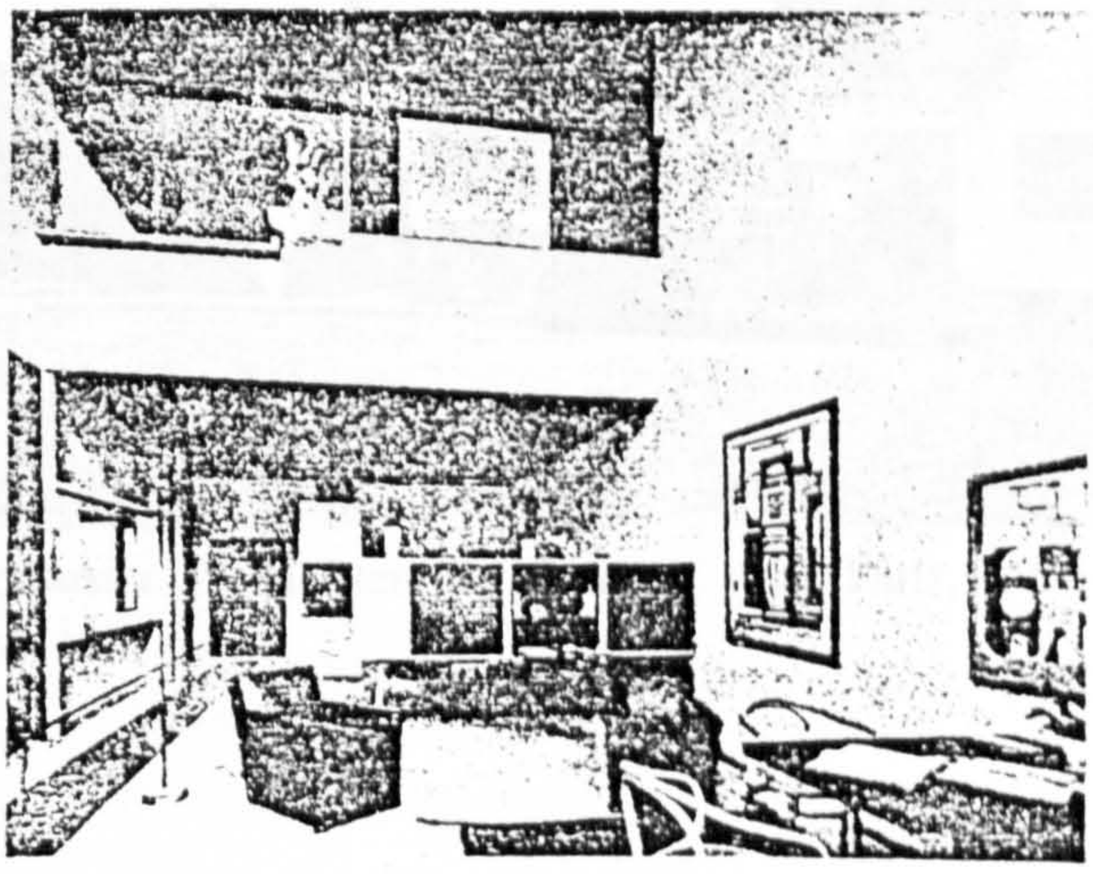


(a)

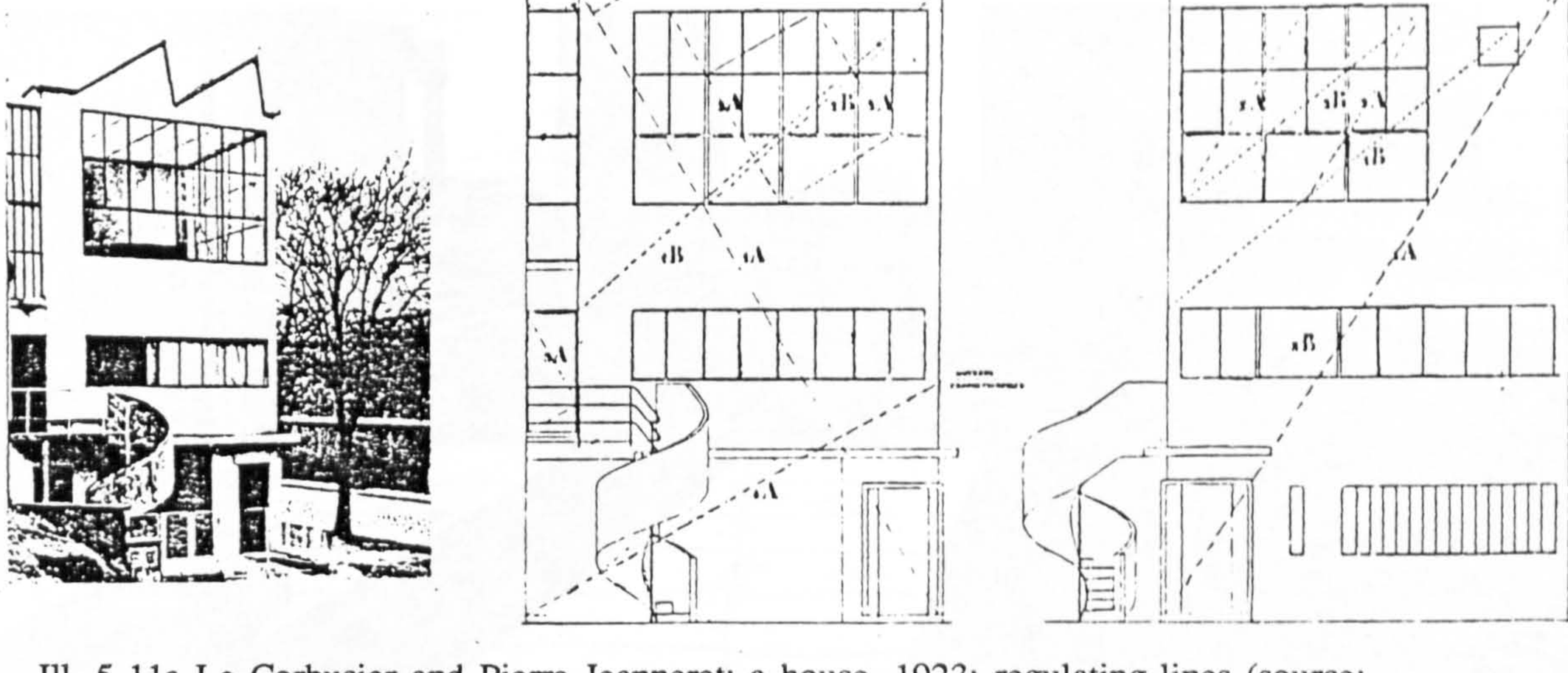


(b)

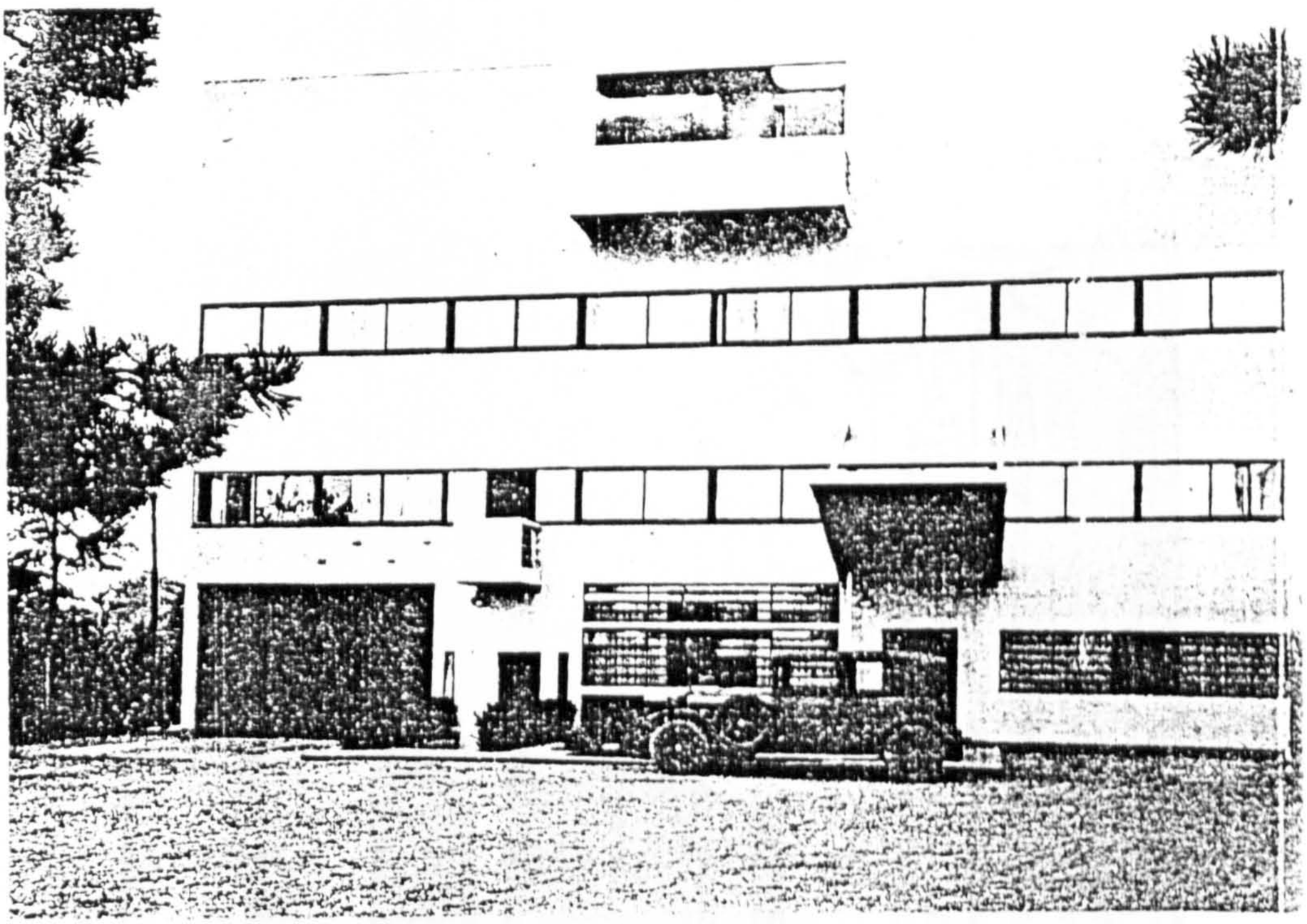
Ills 5-9 Purist Compositions; (a) Charles-Edouard Jeanneret, *Nature morte à la pile d' assiettes*, 1920; (b) Amedée Ozenfant, *Flacon, quitare, verre et bouteilles*, 1920 (source: Stangos, ills 29, 28).



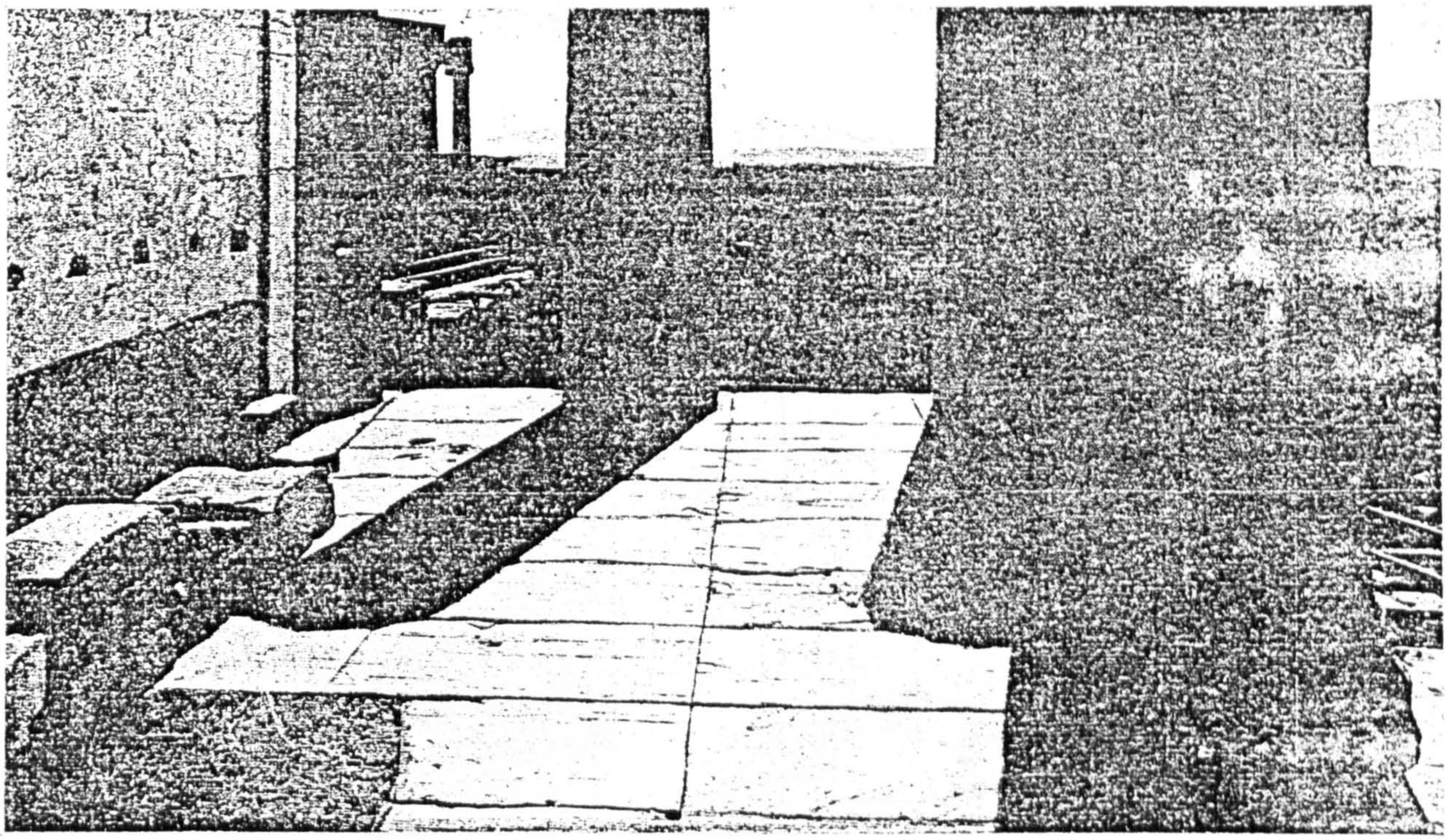
Ill. 5-10 Le Corbusier, *Pavillion de l' Esprit Nouveau*, Paris 1925; interior (source: Frampton, ill. 139).



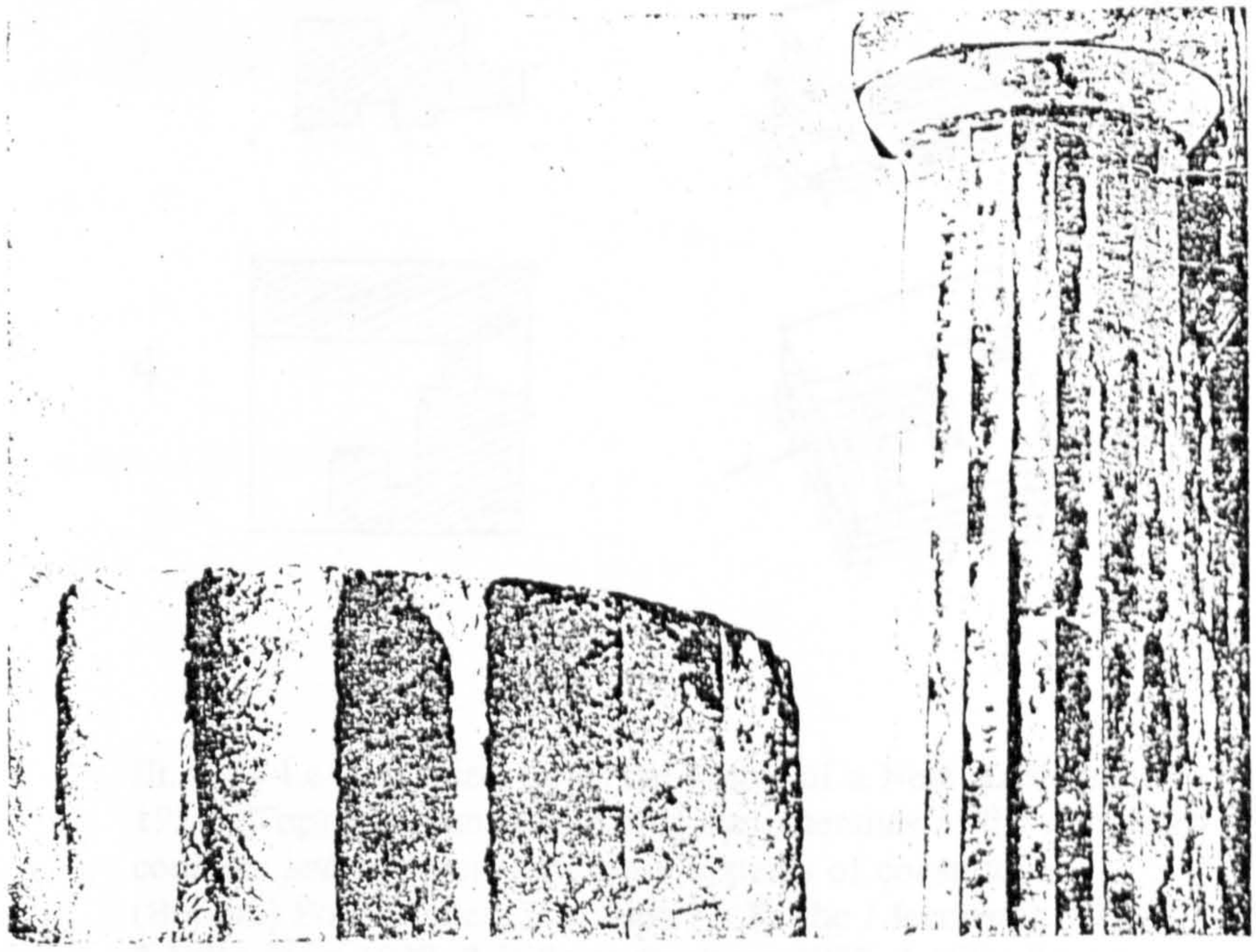
Ill. 5-11a Le Corbusier and Pierre Jeanneret: a house, 1923; regulating lines (source: Le Corbusier, p. 81).



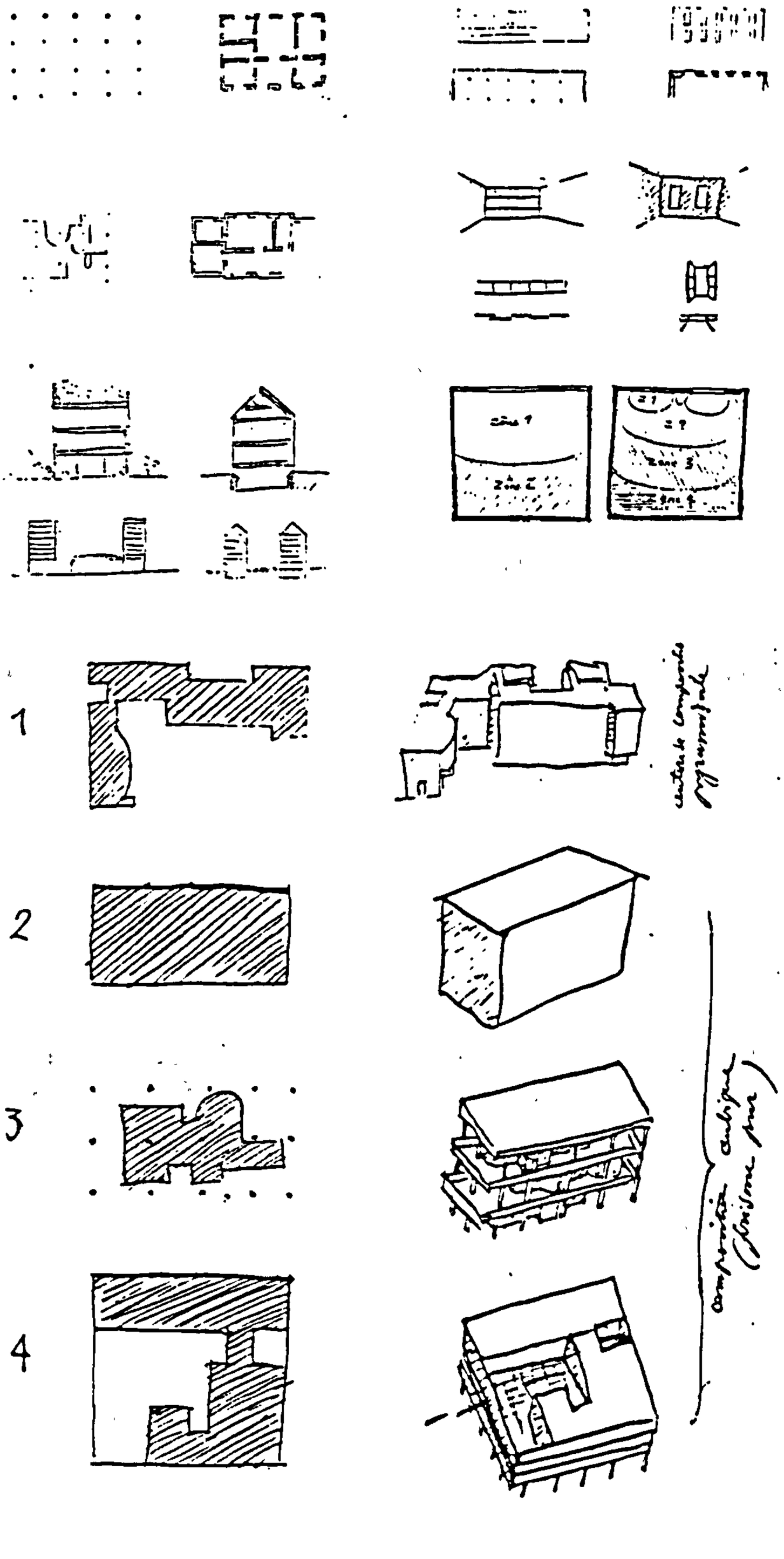
Ill. 5-11b Le Corbusier, Villa Stein at Garches, near Paris, 1926-7; front facade (source: Curtis, p. 115).



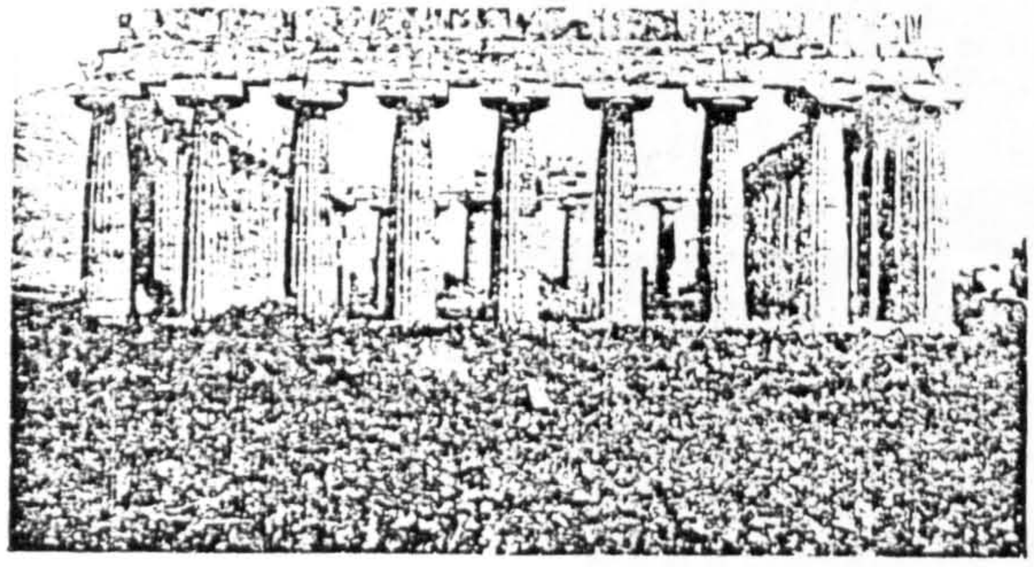
Ill. 5-12 Propylea, photographed by Le Corbusier (source: Le Courbusier, p. 205).



Ill. 5-13 From the Parthenon, photo by Le Corbusier (source: Le Corbusier, p. 209).



Ill. 5-14 Le Corbusier, the "Five Points of a New Architecture", 1926. (Top) Diagrams comparing the potentials of the reinforced concrete and traditional masonry systems of construction. (Bottom) Four studies: 1 Maison La Roche / Jeanneret, 1923, 2 Villa Stein 1927, 3 Villa at Carthage 1927, 4 Villa Savoye 1929 (source: Curtis, p. 114).

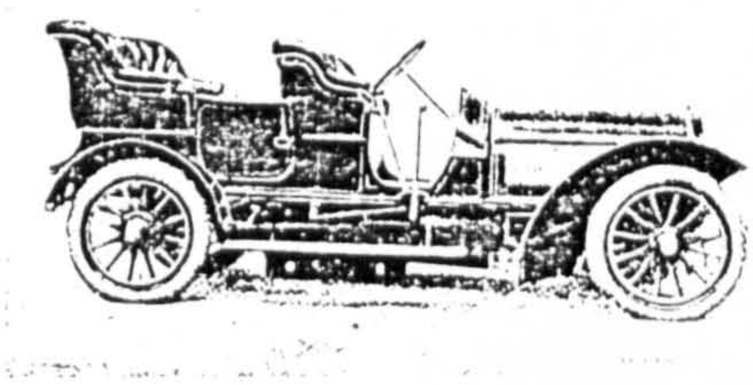


PAESTUM, 600-550 B.C.

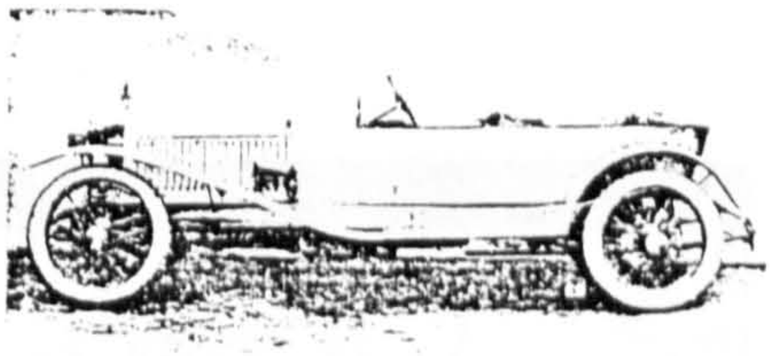
THE PARTHENON, 447-434 B.C.

When once a standard is established, competition comes at once and violently into play. It is a fight; in order to win you must do better than your rival *in every minute point*, in the run of the whole thing and in all the details. Thus we get the study of minute points pushed to its limits. Progress.

A standard is necessary for order in human effort.

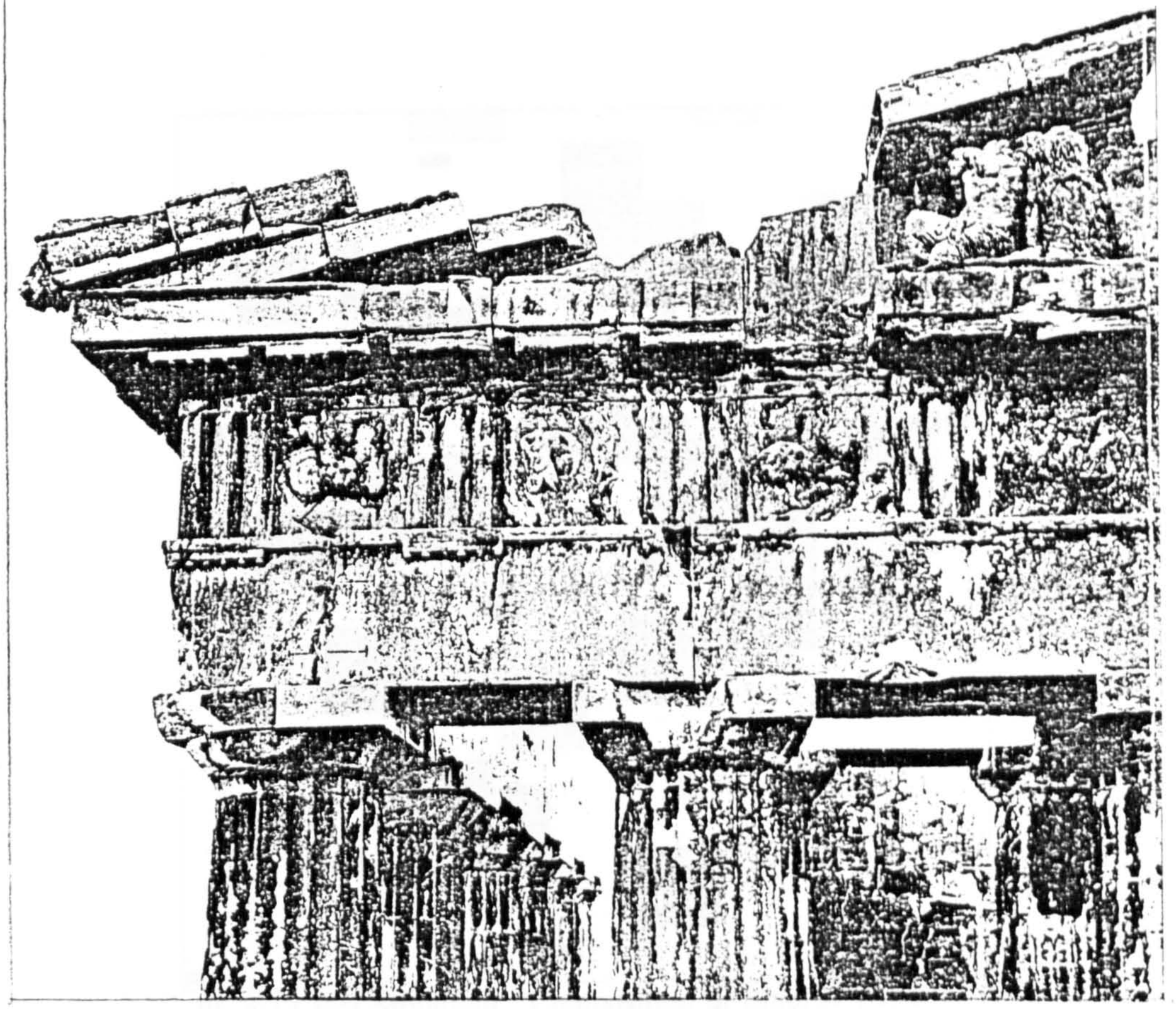


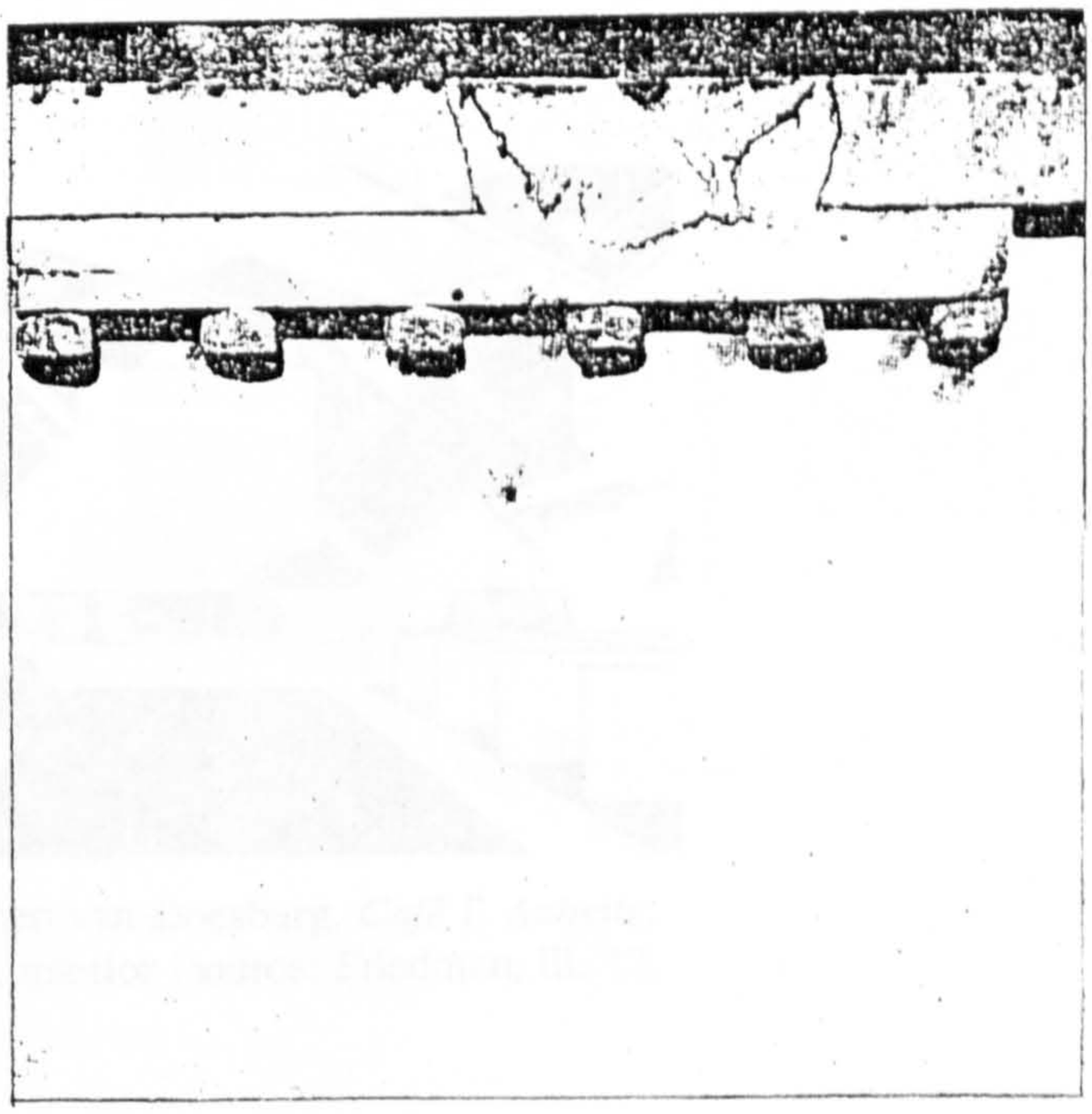
HUMBER, 1907



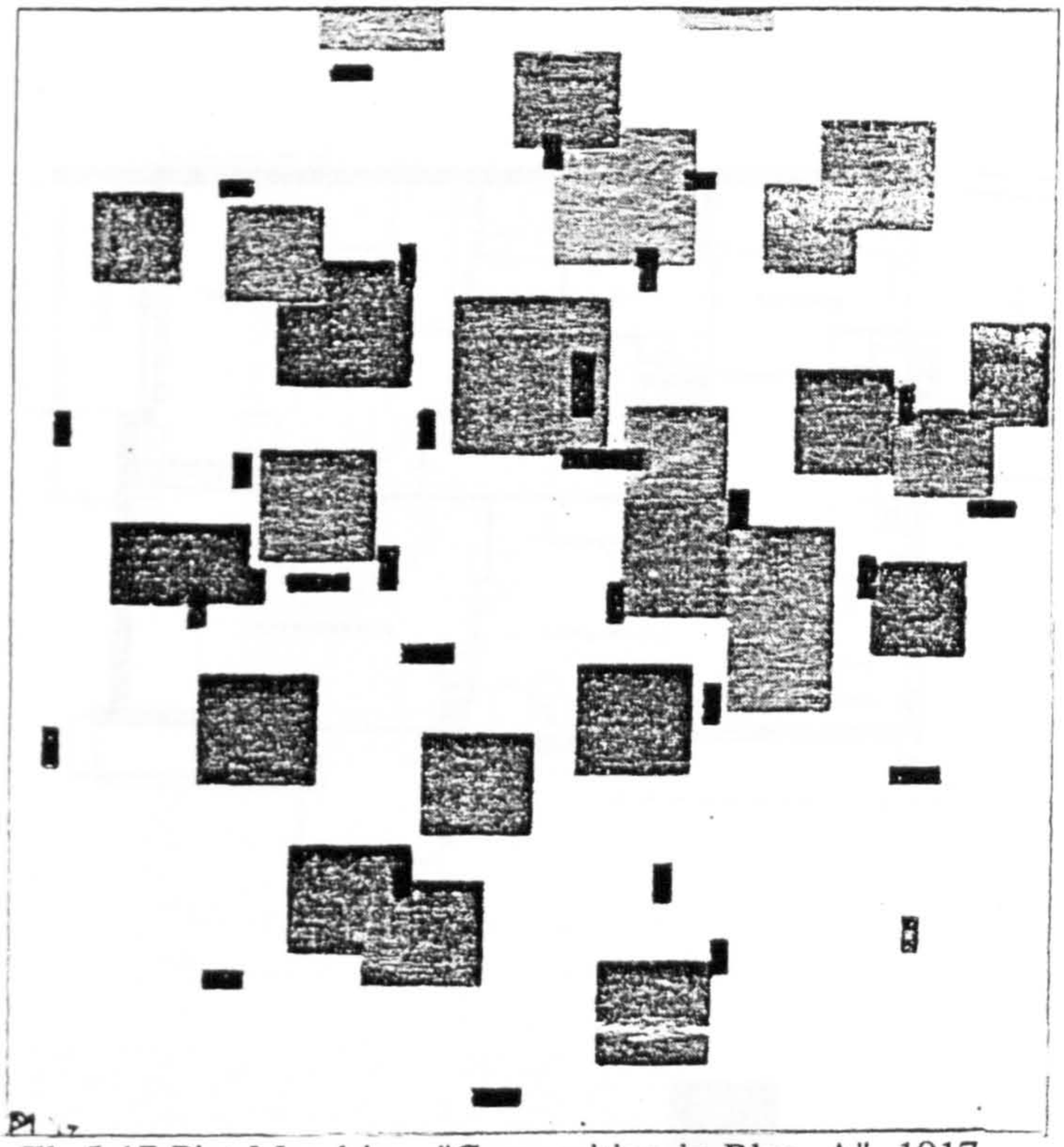
DELAGE, "GRAND-SPORT," 1921

Ill. 5-15 (Source: Le Corbusier, pp. 134-5).

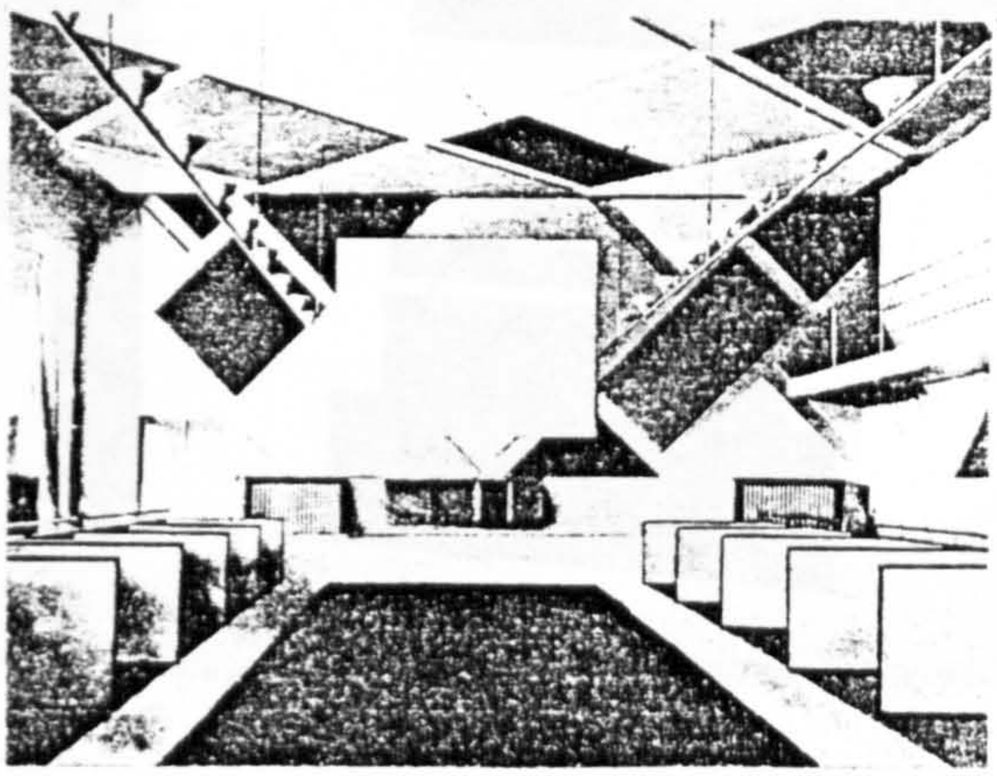




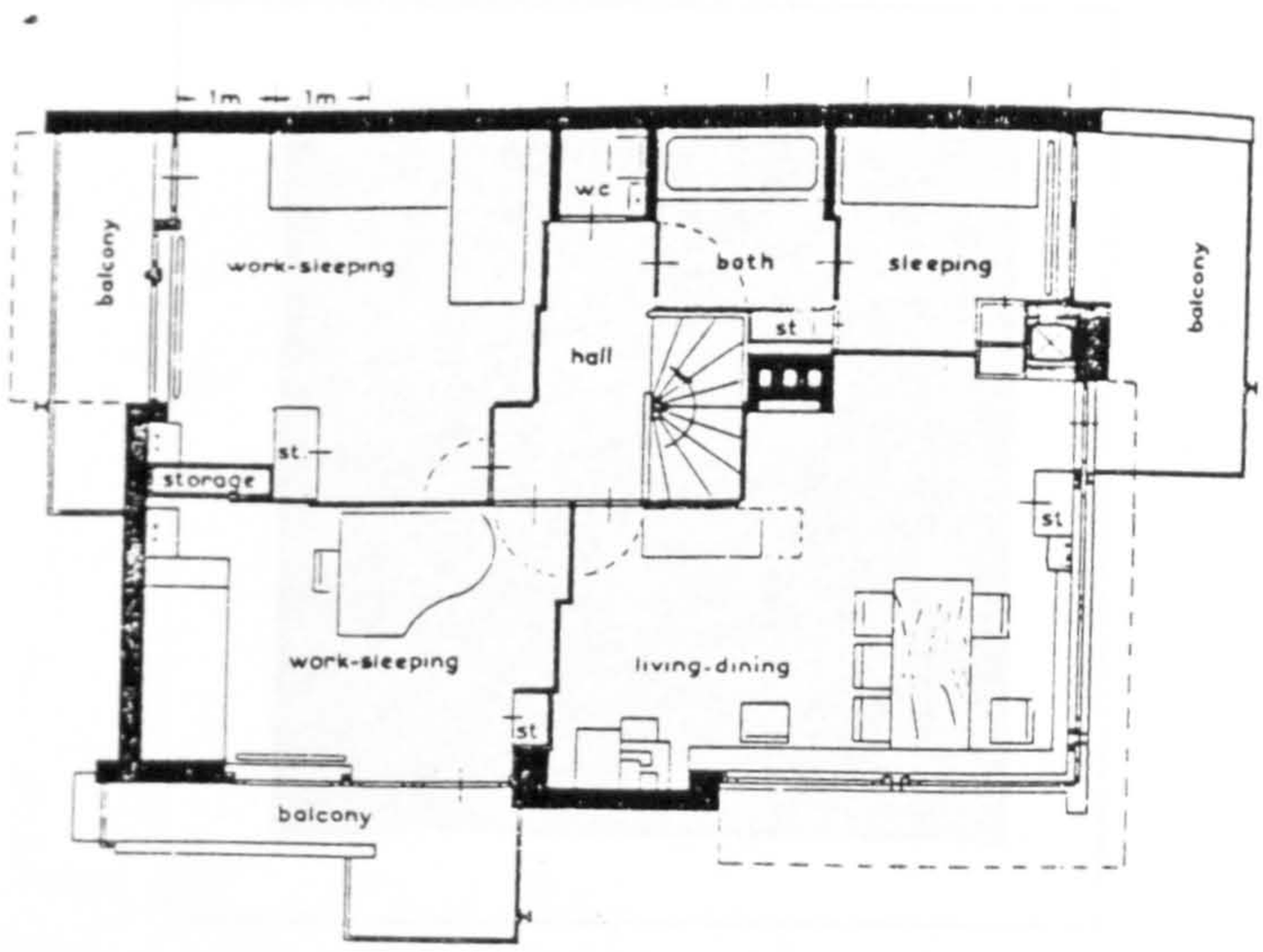
Ills 5-16 "We are in the inexorable realm of the mechanical". Photos from the Parthenon, taken by Le Corbusier (source: Le Corbusier, pp. 211, 217).



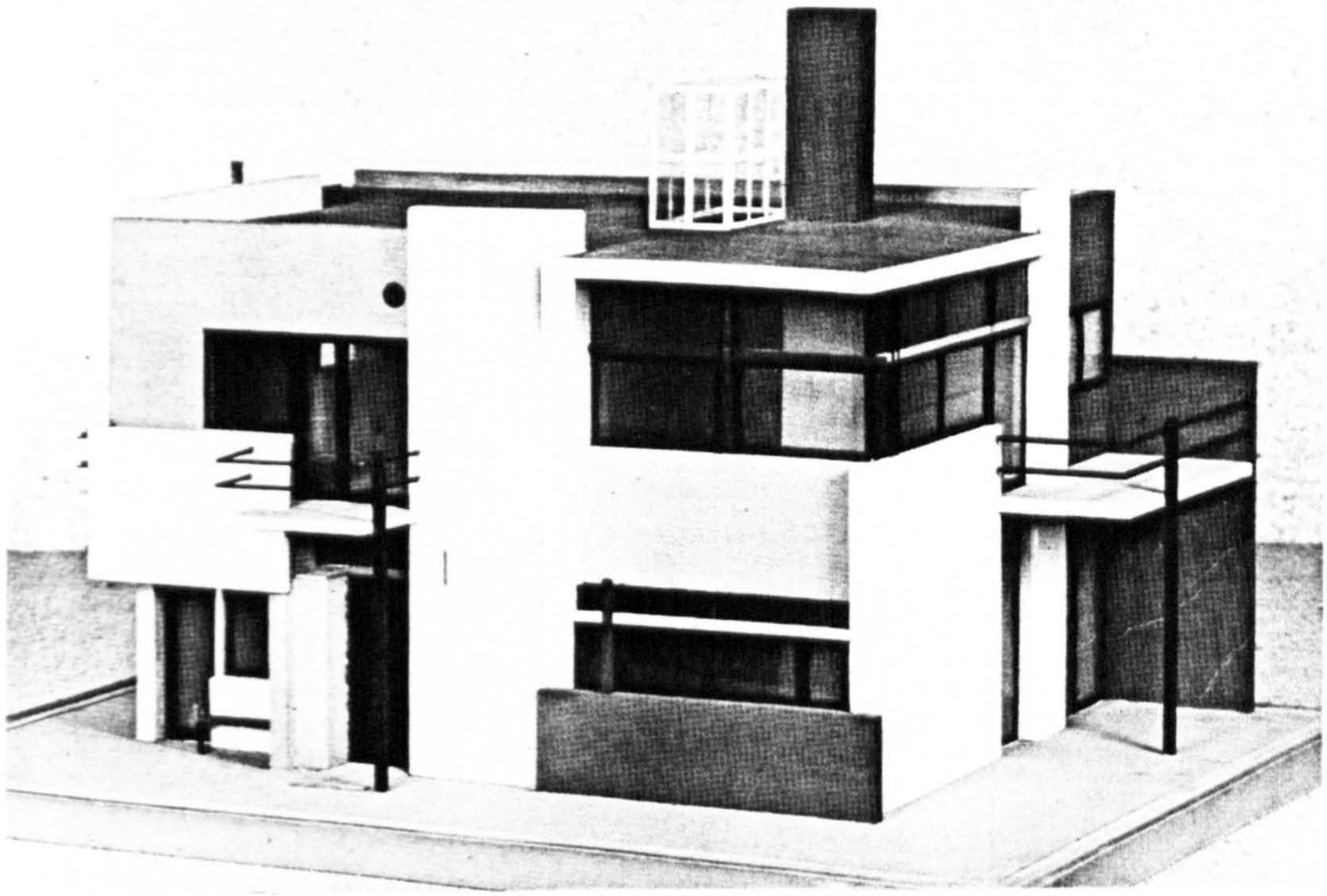
Ill. 5-17 Piet Mondrian, "Composition in Blue, A", 1917 (source: Friedman, ill. 30, p. 59).



Ill. 5-18 Theo van Doesburg, *Café l' Aubette*, Strasbourg, interior (source: Friedman, ill. 17, p. 233).

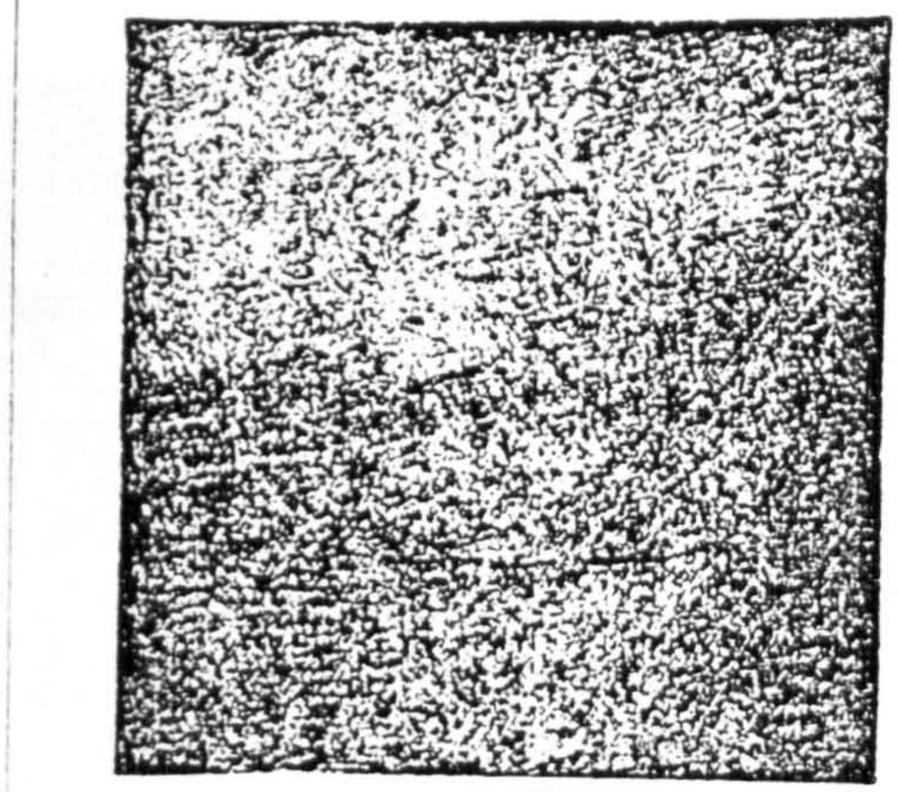


(a)



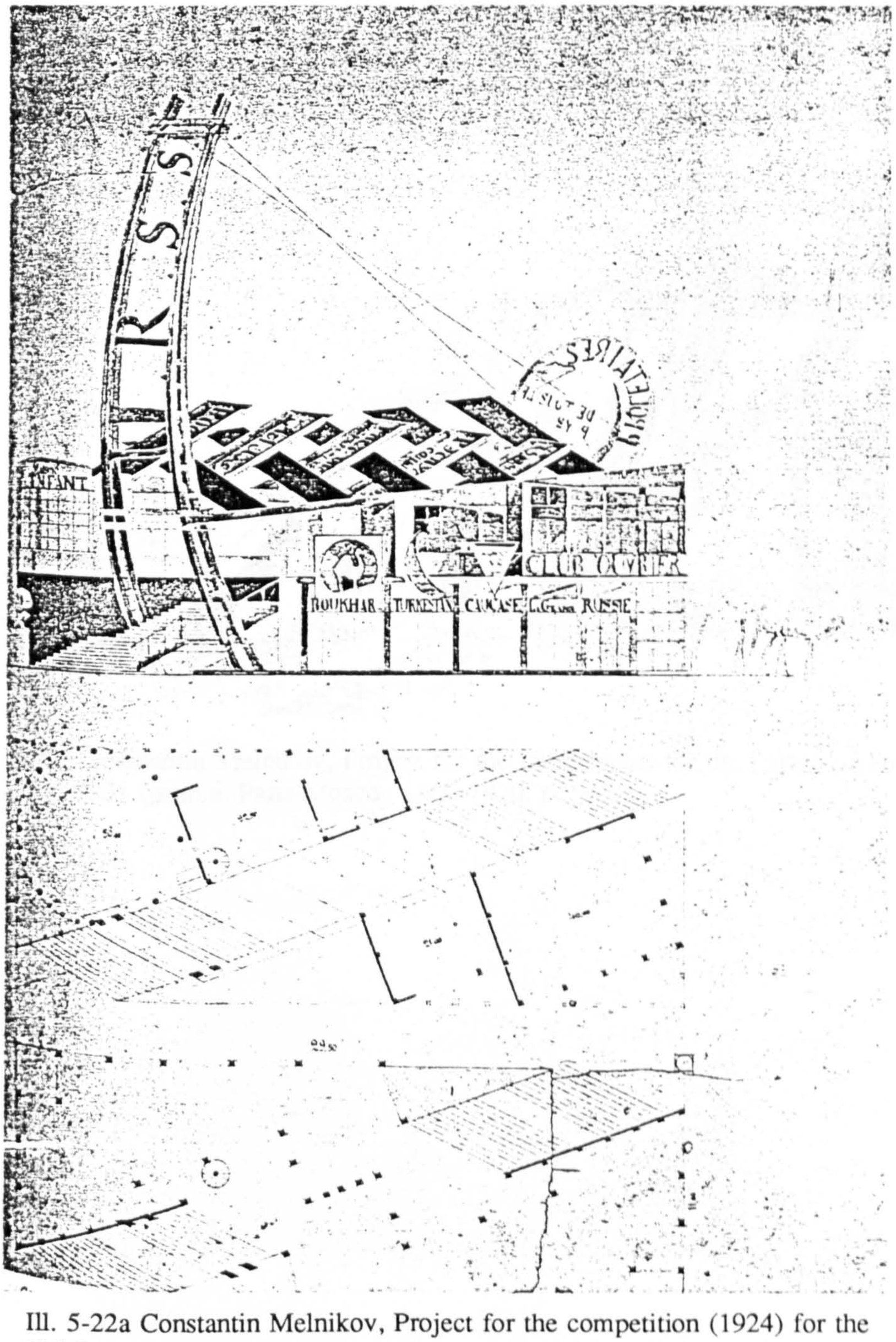
(b)

Ills 5-19 G. T. Rietveld, Schröder House; (a) upper floor plan with sliding and folding partitions in the close position (source: Stangos, ill. 79); (b) photograph of the model, 1923-4 (source: photo, Rietveld).

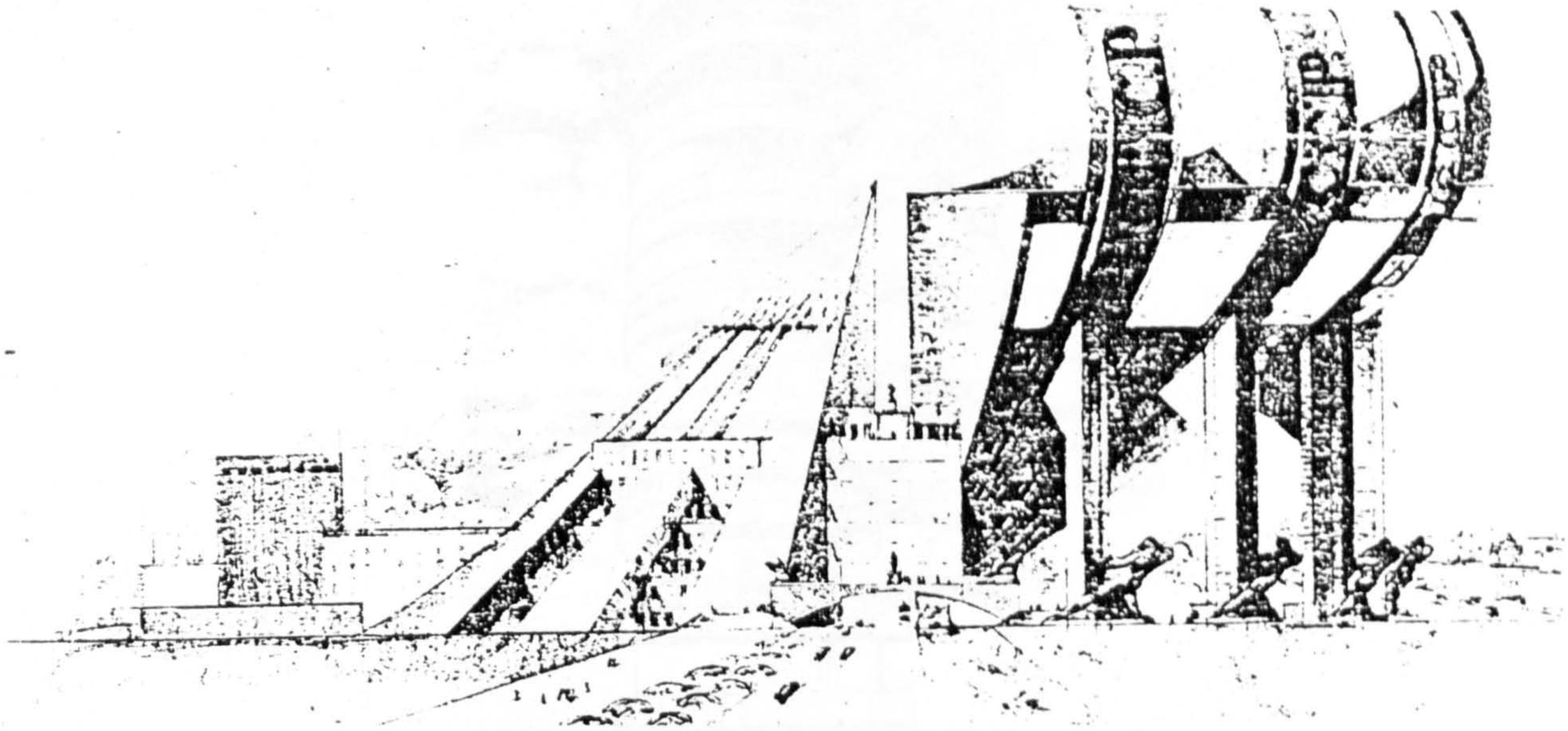


Ill. 5-20 Kasimir Malevich, "Black square on a white ground", 1913 (source: Stangos, ill. 65).

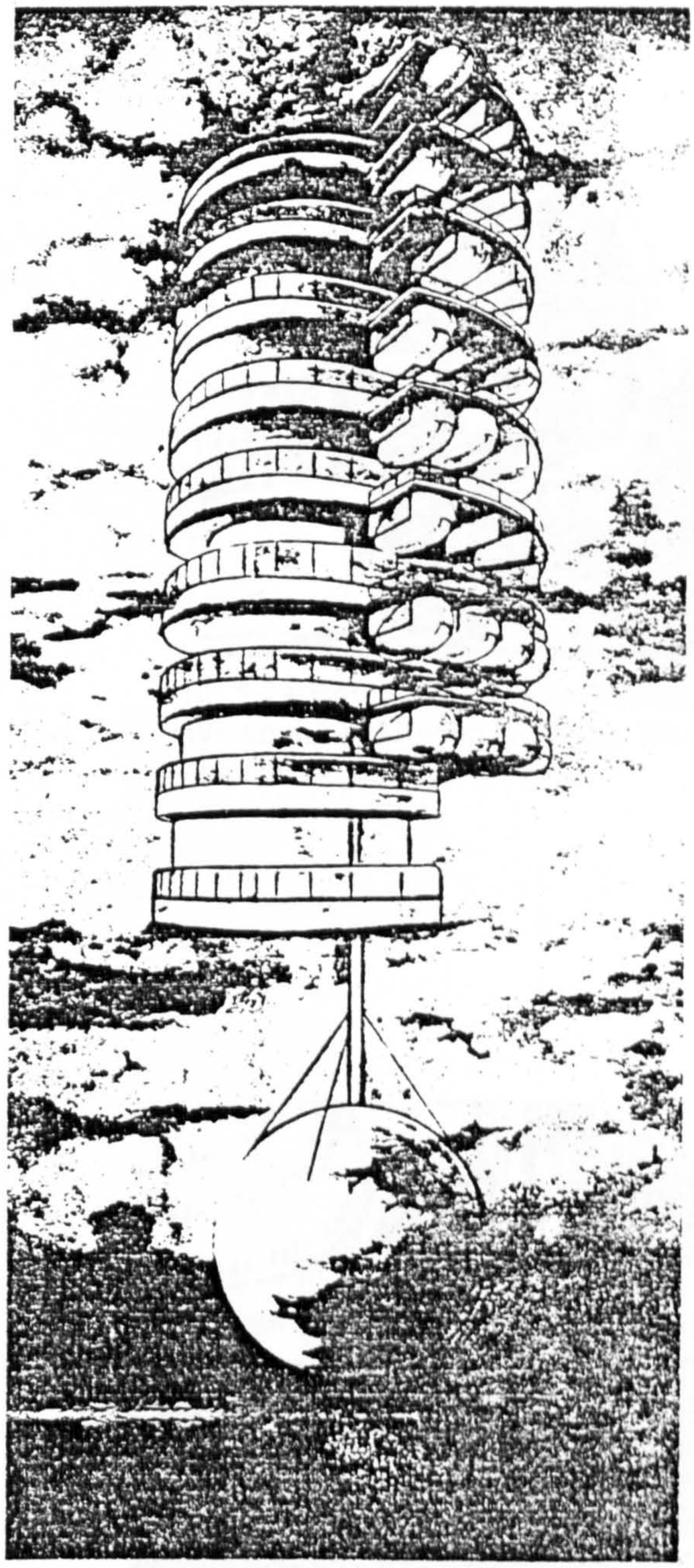
Ill. 5-21 Kasimir Malevich, "Suprematist composition conveying a feeling of universal space", 1916 (source: Stangos, ill. 66).



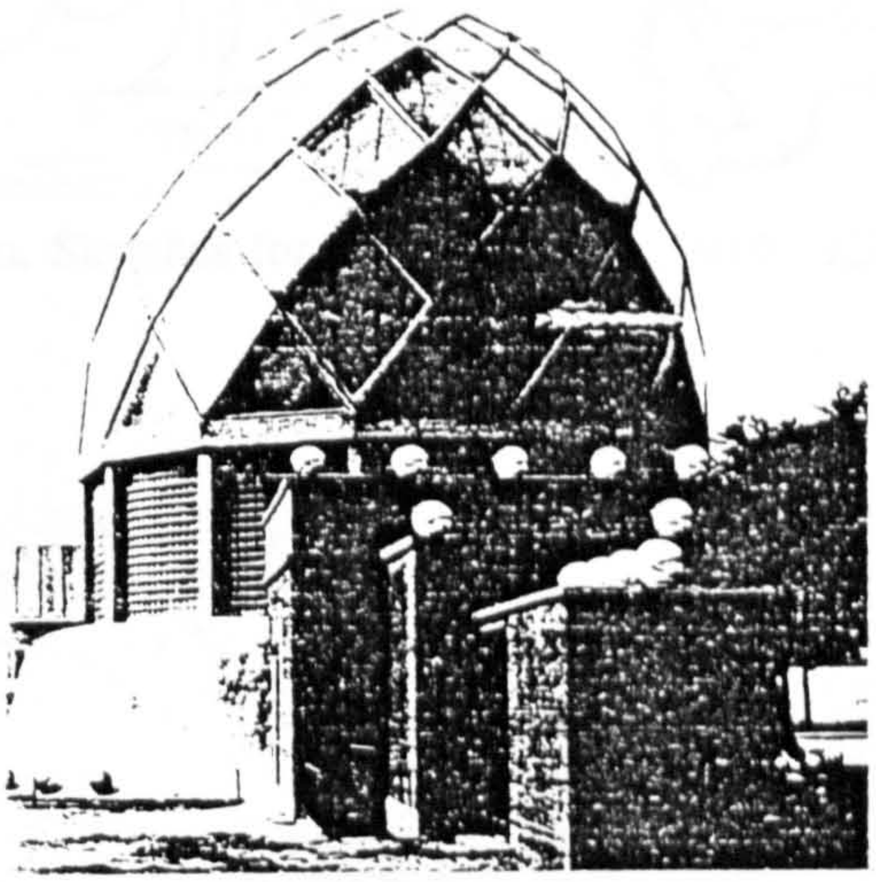
Ill. 5-22a Constantin Melnikov, Project for the competition (1924) for the U.S.S.R. Pavilion for the Decorative Arts Exhibition, Paris, 1925 (source: Paris-Moscou 1900-1930, p. 287).



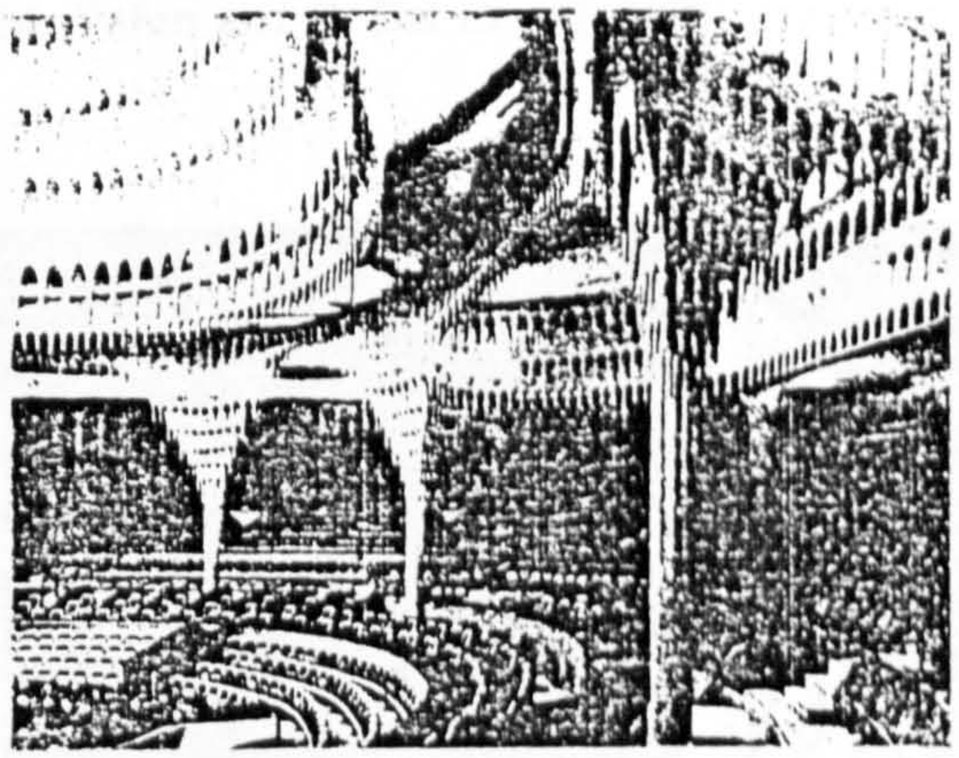
Ill. 5-22b Constantin Melnikov, Project for the competition for the Palace of Soviets, Moscou, 1931 (source: Paris-Moscou 1900-1930, p. 310).



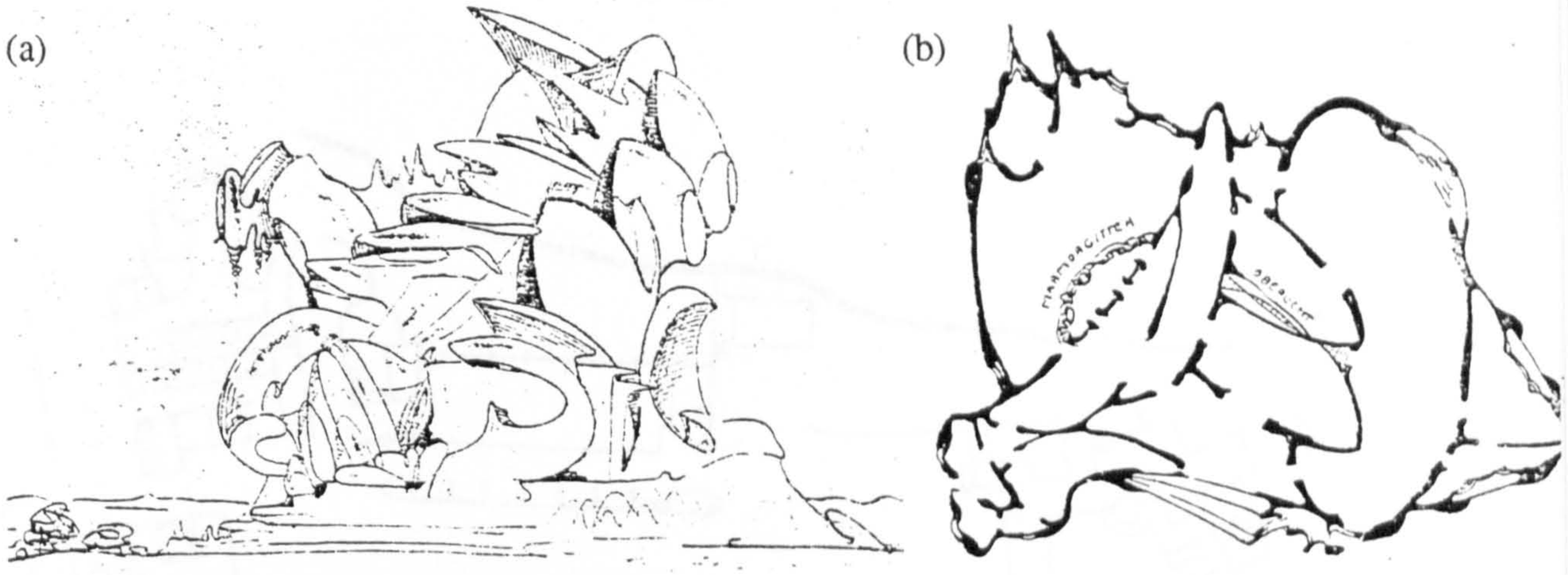
Ill. 5-23 Gueorgui Kroutikov, *Ville volante, immeuble d' habitations*, 1928 (source: Paris-Moscou 1900-1930, p. 303).



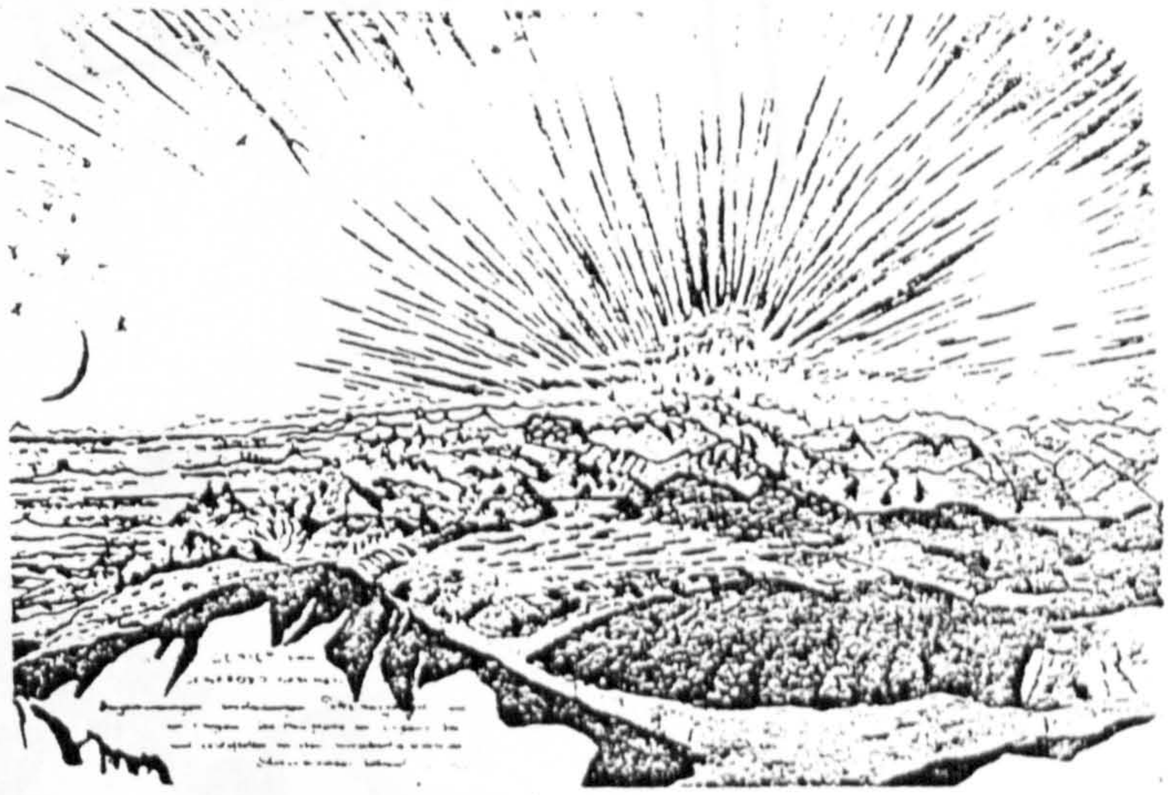
Ill. 5-24 Bruno Taut, Glass Pavilion, Werkbund Exhibition, Cologne 1914 (source: Pevsner, ill. 181).



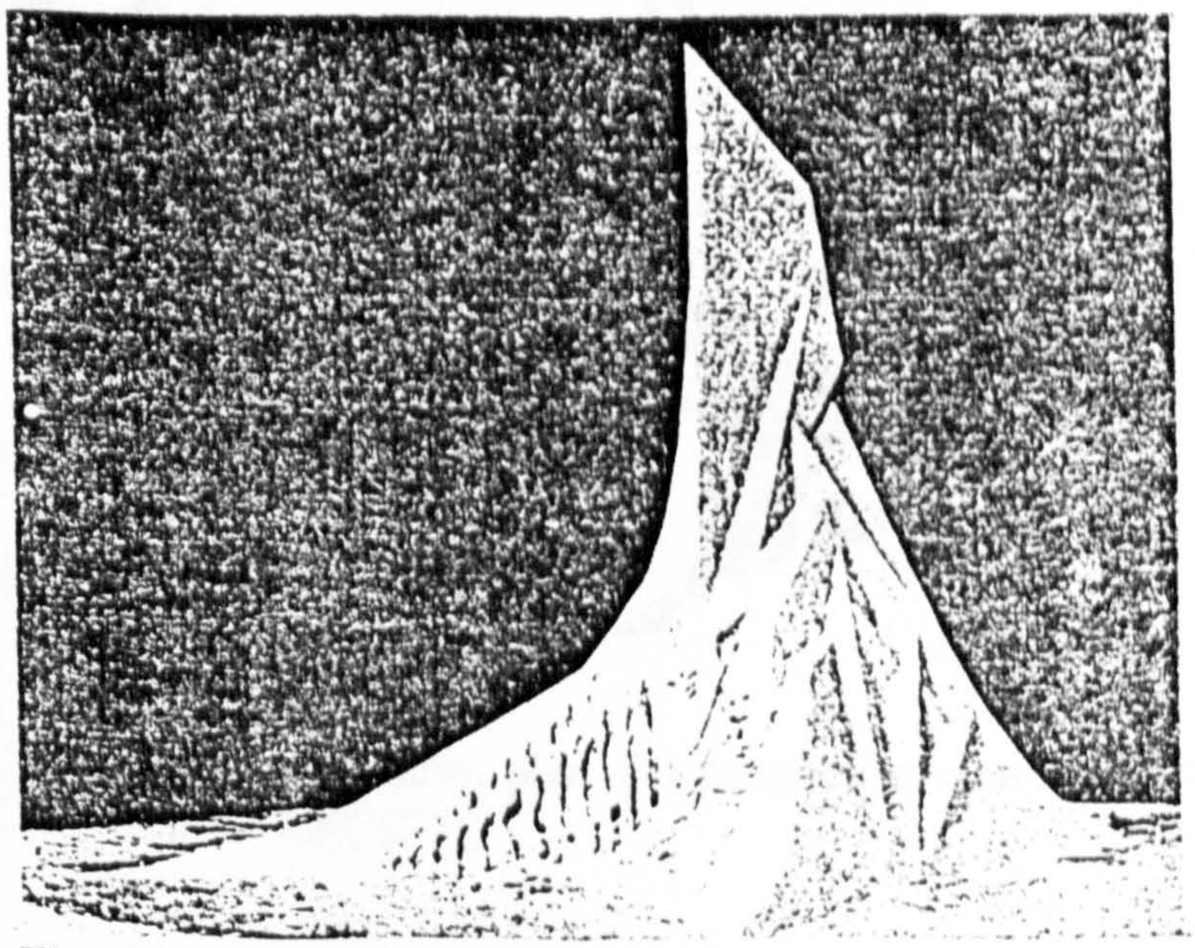
Ill. 5-25 Hans Poelzig, *Grosse Schauspielhaus*, Berlin 1919 (source: Frampton, ill. 96).



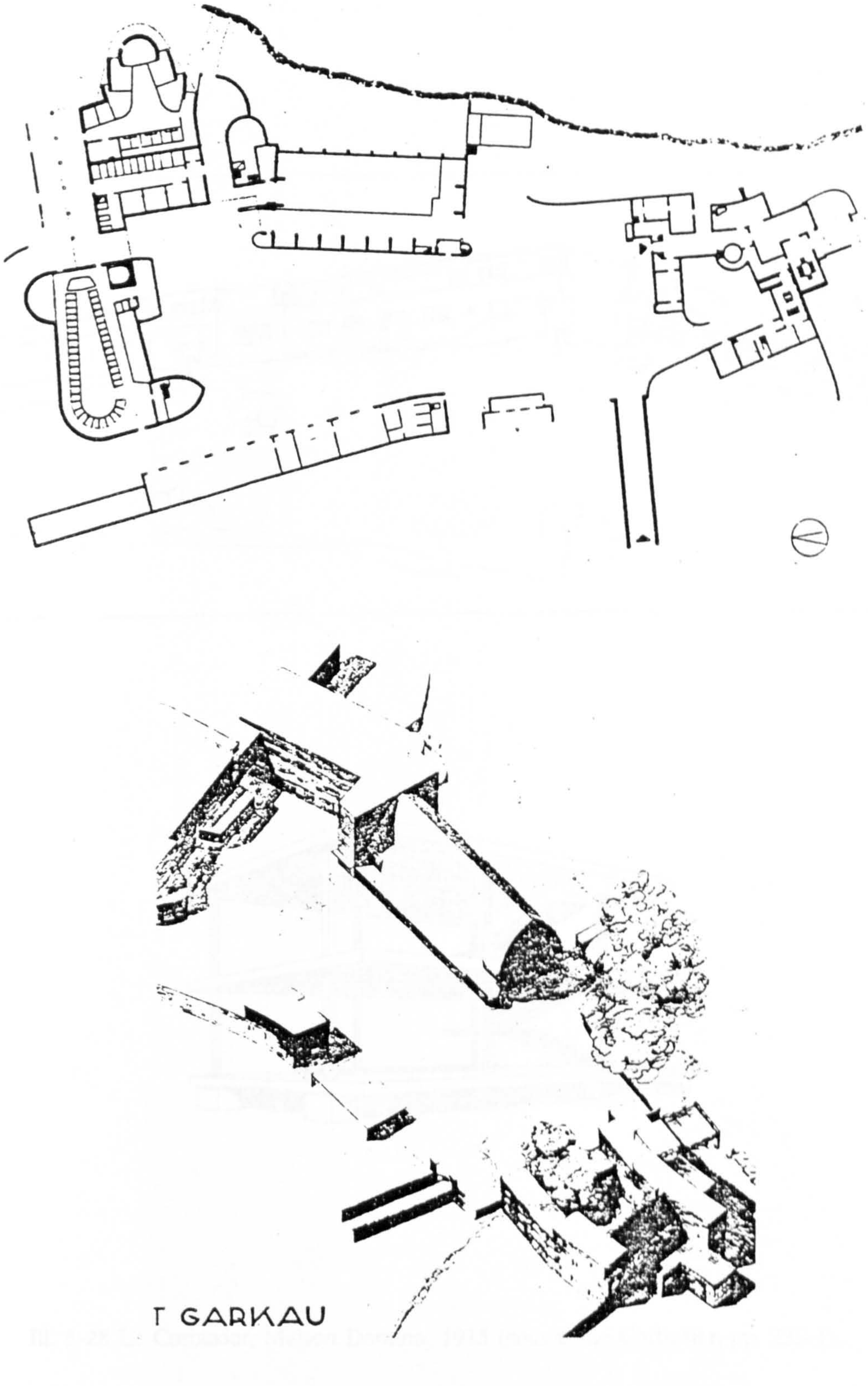
Ills 5-26a,b H. Finsterlin, Sketches for an Arts Centre, 1919-1920 (source: Benevolo, ills 438, 439).



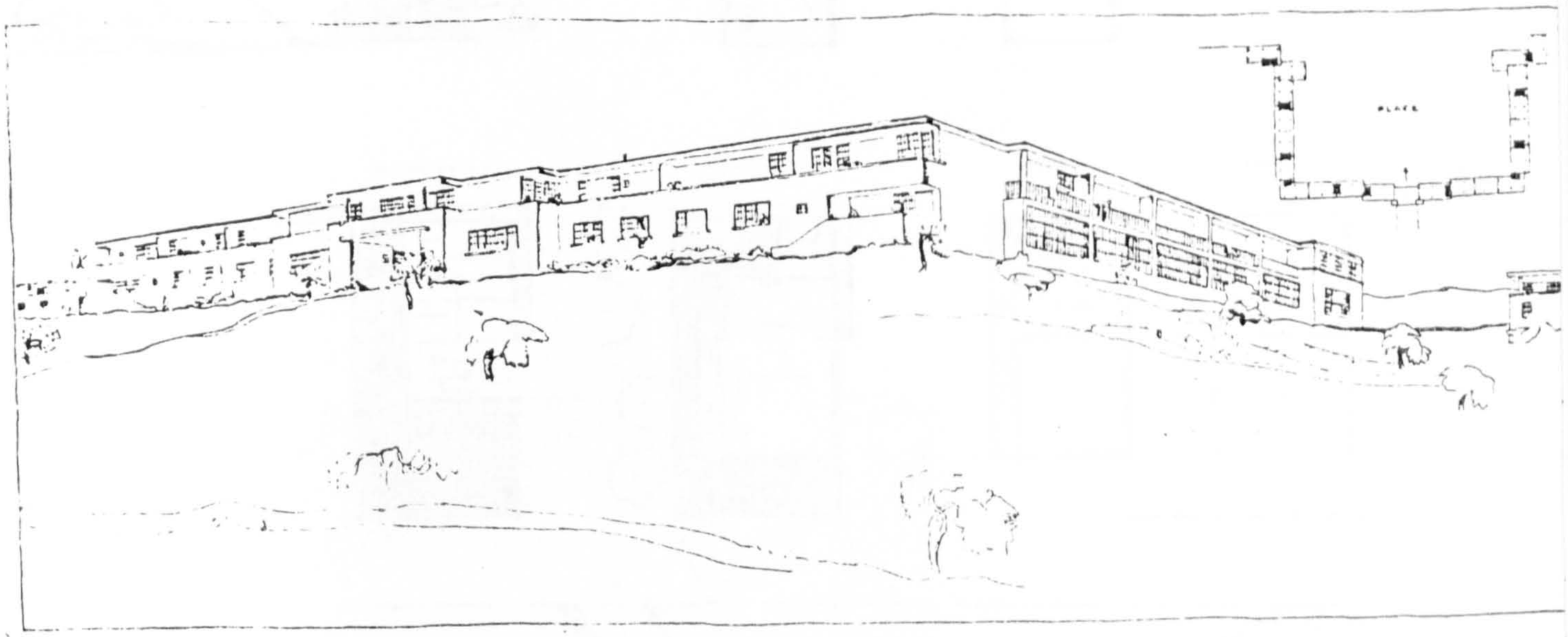
Ill. 5-26c Bruno Taut, fantasy landscape with glass architecture on mountaintops around Lake Lugano; drawing from the volume *Alpine Architektur*, 1917-19 (source: M. Tafuri and F. Dal Co, ill. 189).

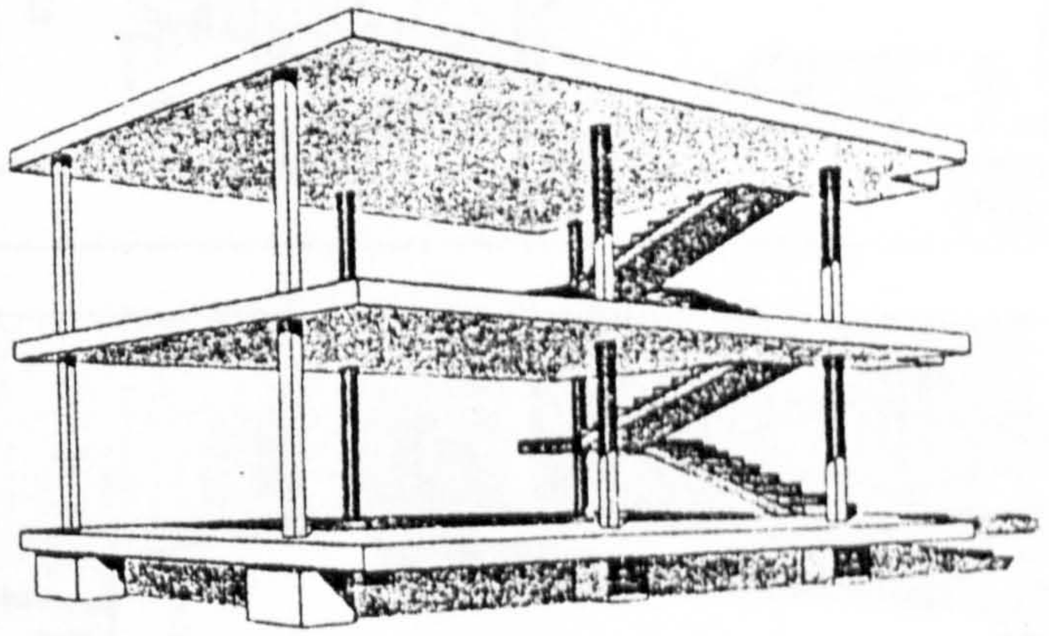


Ill. 5-26d Wassily Luckhardt, still from the film *Formspiel*, 1919 (source: M. Tafuri and F. Dal Co, ill. 190).



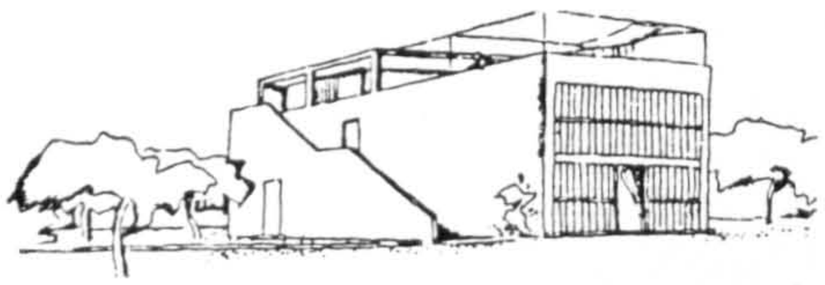
Ill. 5-27 Hugo Häring, Gut Garkau model farm, plan and perspective view, 1924-25 (source: M. Tafuri and F. Dal Co, ills 270, 271).

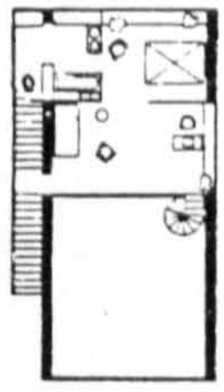




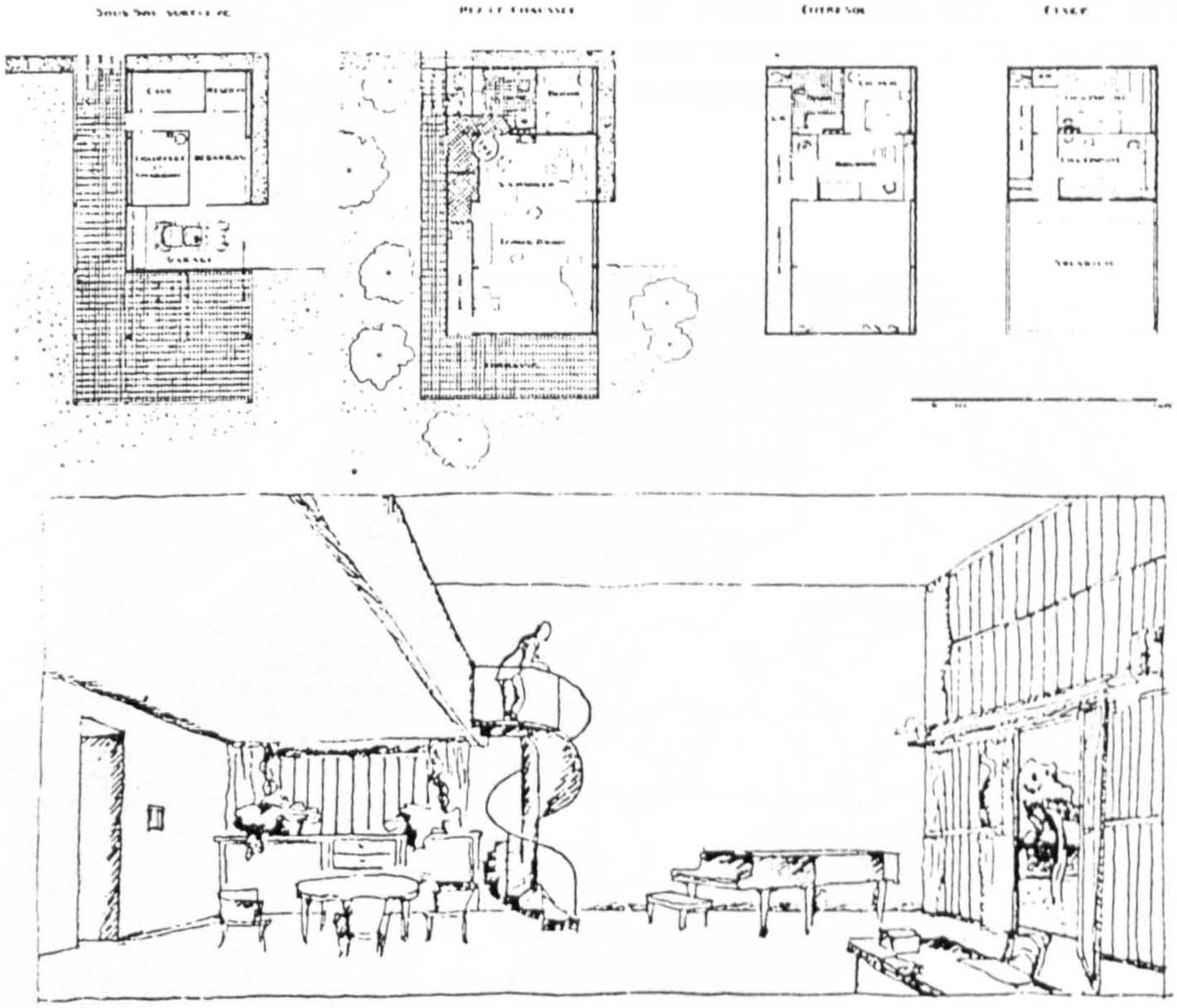
Ill. 5-28 Le Corbusier, Maison Domino, 1915 (source: Le Corbusier, pp. 230-1).

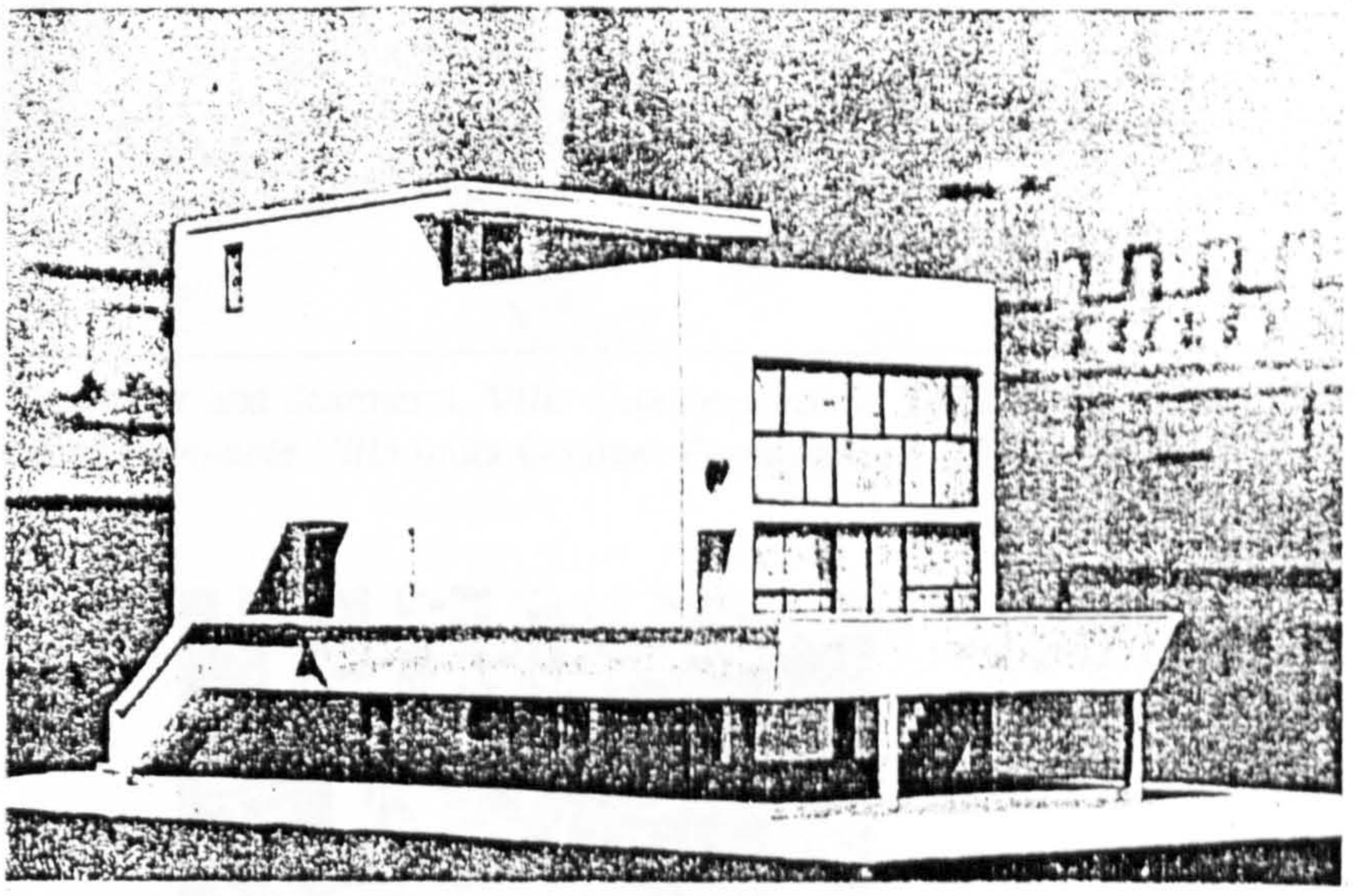
(a)





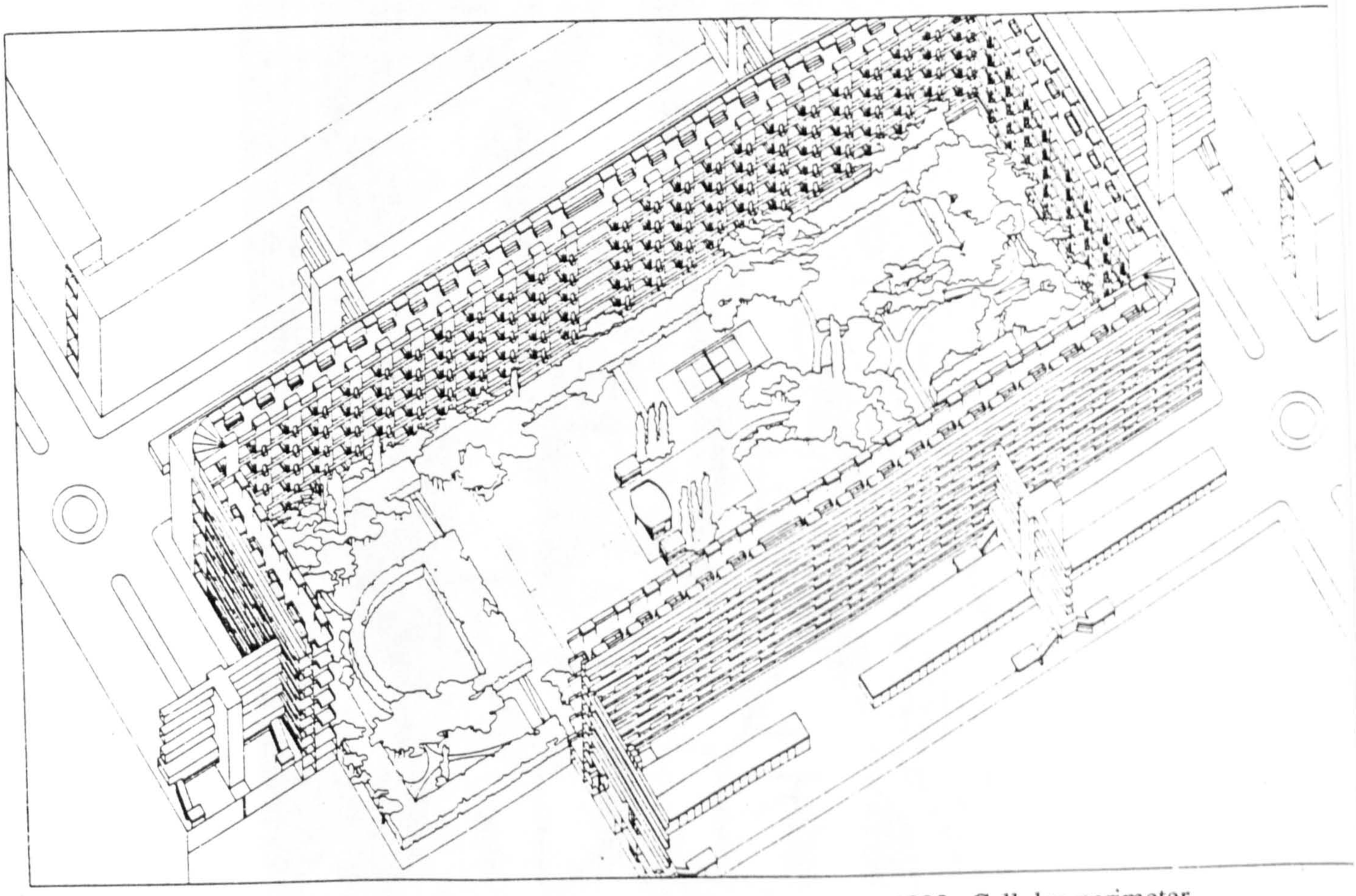
(b)





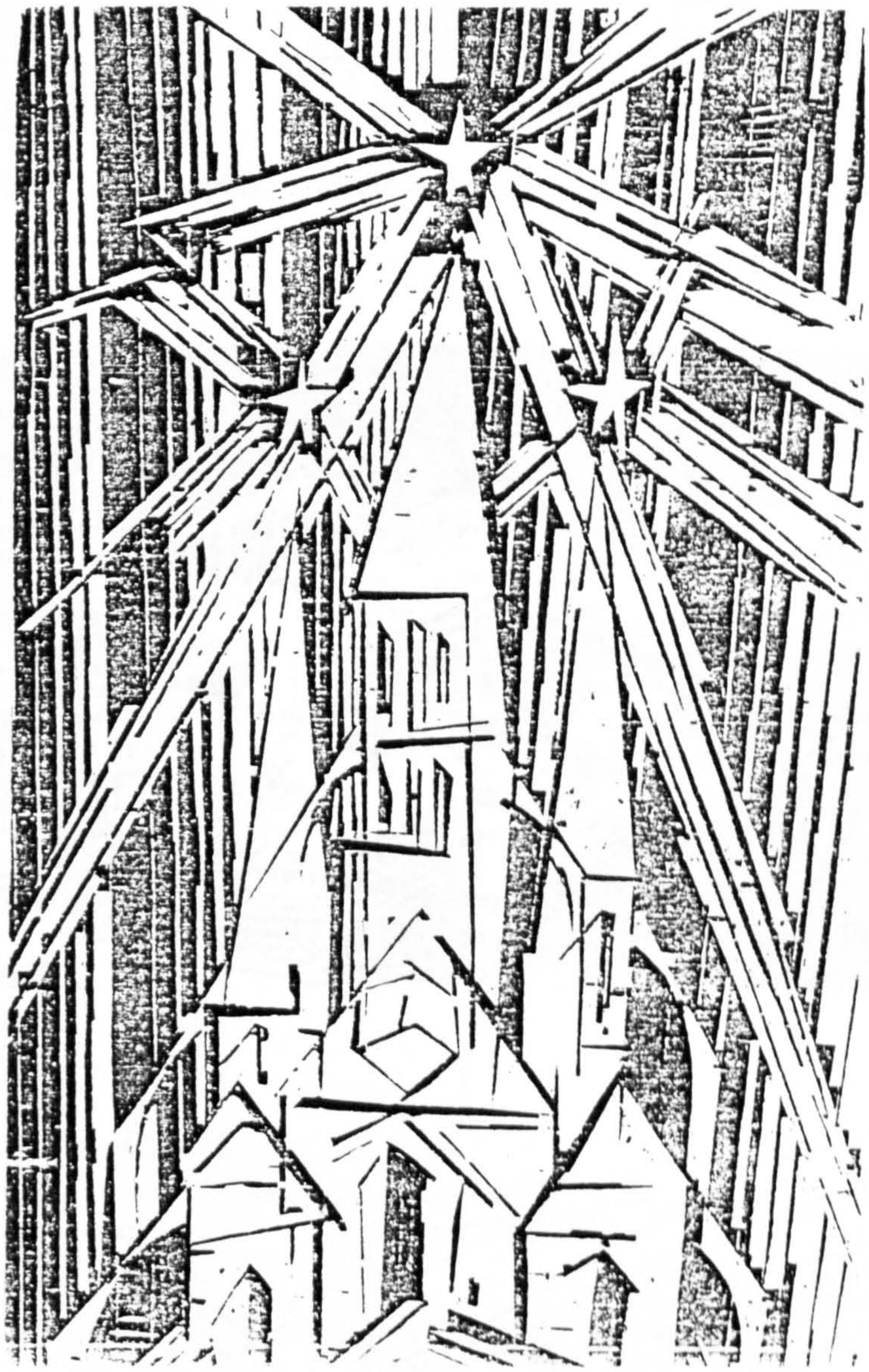
Ills 5-29a,b Two versions of the Citrohan House, Le Corbusier, (a) 1920, (b) 1921 (source: (a) Frampton, ill. 134; (b) Le Corbusier, pp. 240-1).

Ill. 5-29d Le Corbusier, Pessac housing estate, near Bordeaux, 1926, on opening day (source: Frampton, ill. 135).

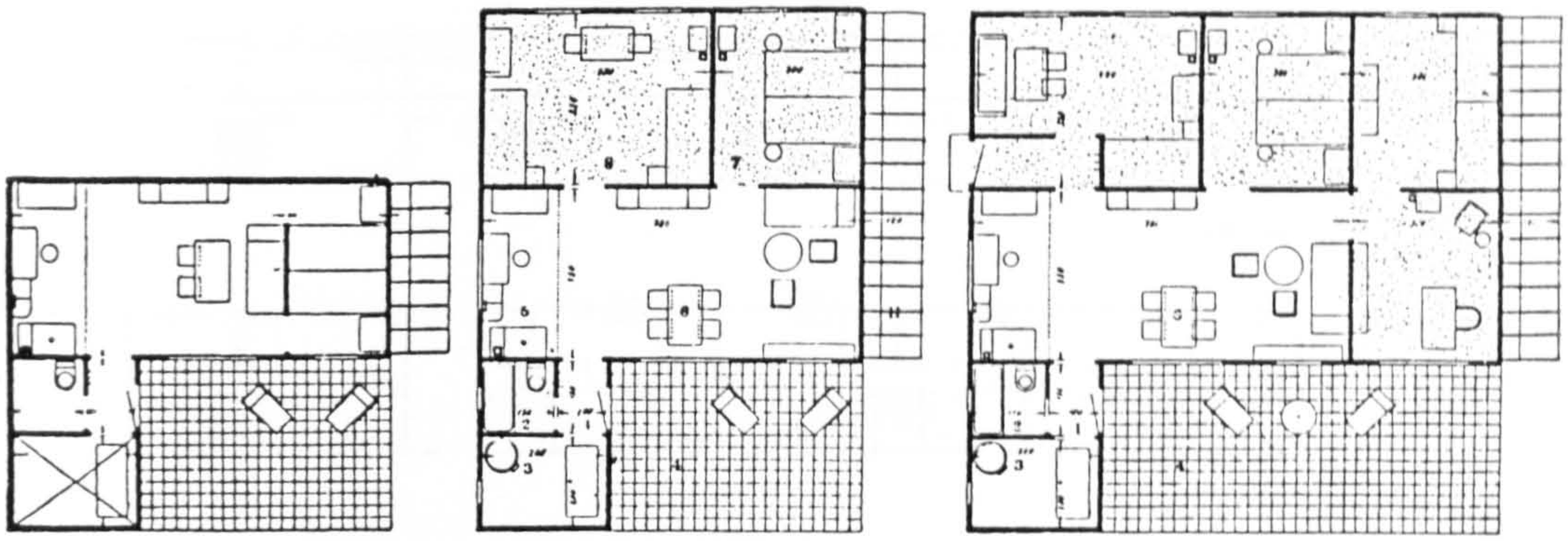


Ill. 5-30a Le Corbusier and Jeanneret, *Ville Contemporaine*, 1922. Cellular perimeter block composed of *Immeuble-Villa* units (source: Frampton, ill. 138).

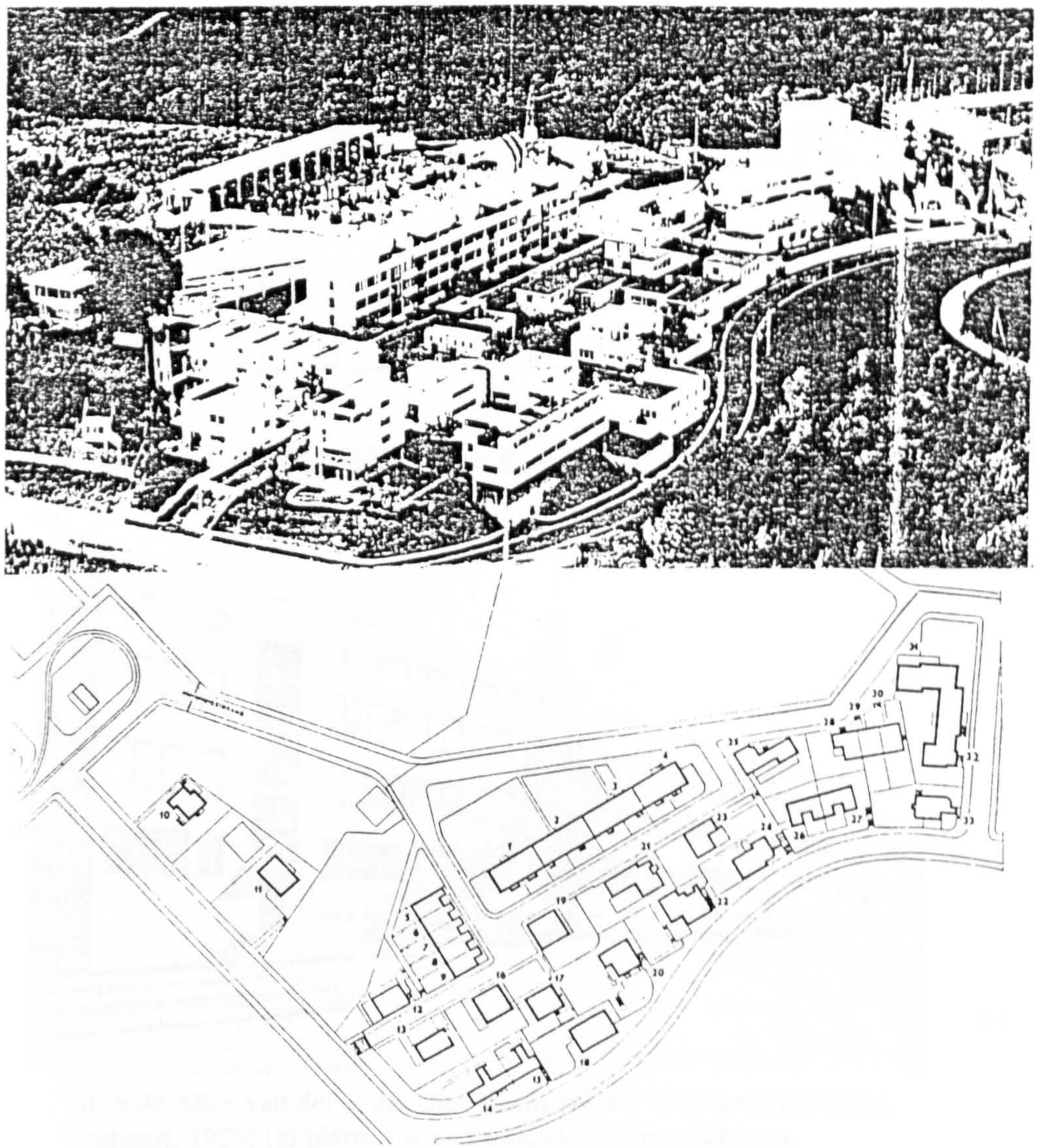
Ill. 5-30b Le Corbusier and Jeanneret, *Plan Voisin* proposal for Paris, 1925; the hand points towards the new business centre of the city (source: Frampton, ill. 137).



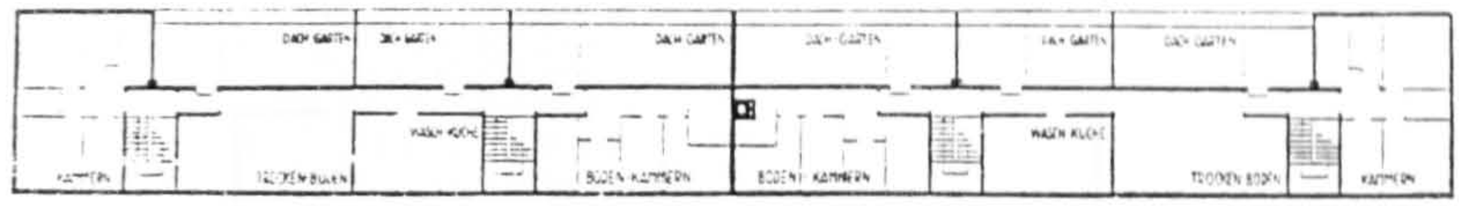
Ill. 5-31 Lyonel Feininger, woodcut from the First Bauhaus Proclamation, 1919; *Zukunftskathedrale,* the cathedral of the future as the cathedral of socialism (source: Bayer, Gropius W. and Gropius I., p. 16).



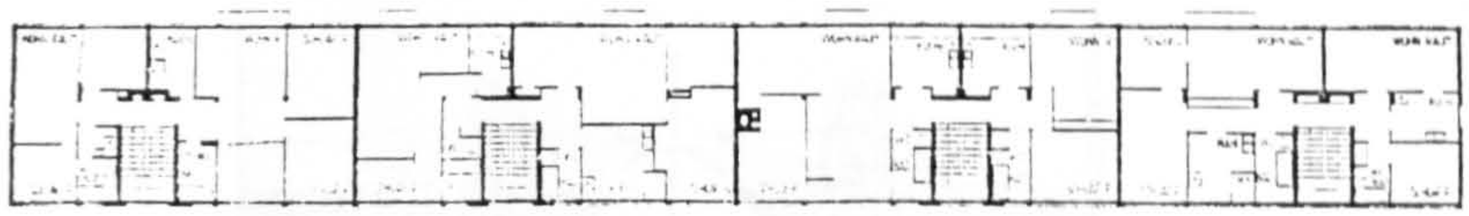
Ill. 5-32 Walter Gropius, extendible prefabricated house, 1931 (source: Benevolo, p. 525).



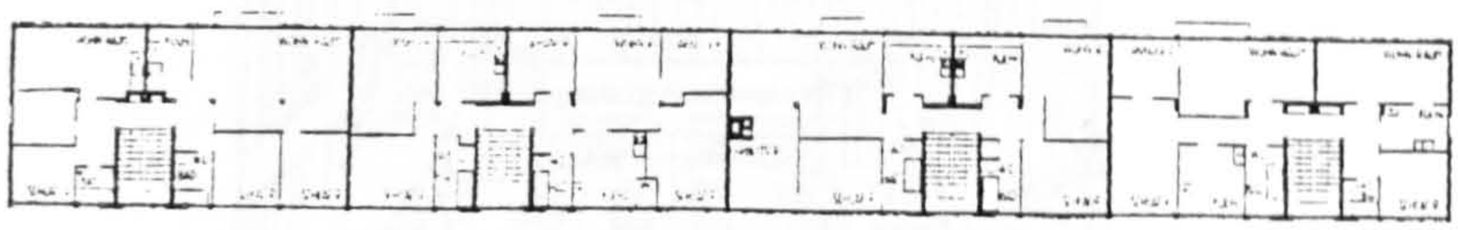
Ill. 5-33 Second Werkbund Exhibition, Weissenhofsiedlung, Stuttgart, Germany, 1927; 1-4 Mies van der Rohe; 5-9 J. J. P. Oud; 10 Victor Bourgeois; 11-12 Adolf G. Schneck; 13-15 Le Corbusier with Pierre Jeanneret; 16-17 Walter Gropius; 18 Ludwig Hiberseimer; 19 Bruno Taut; 20 Hans Poelzig; 21-22 Richard Docker; 23-24 Max Taut; 25 Adolf Rading; 26-27 Josef Frank; 28-30 Mart Stam; 31-32 Peter Behrens; 33 Hans Scharoun (source: Johnson, pp. 44-5).



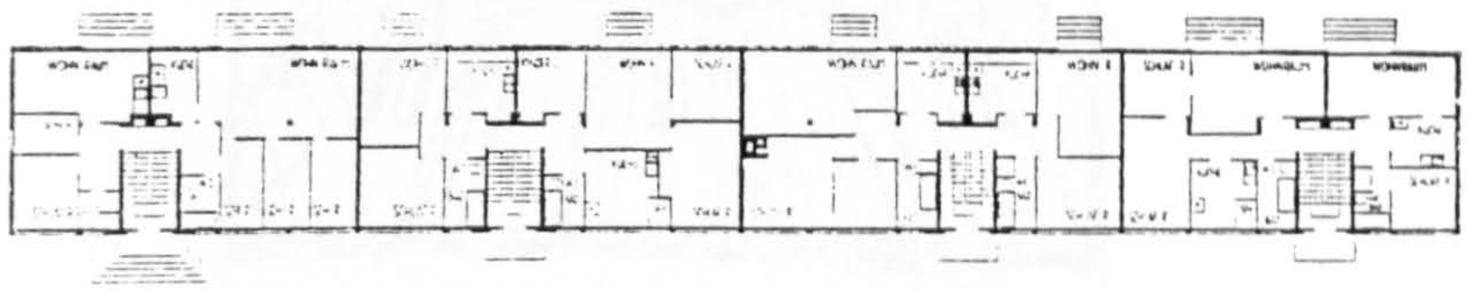
Fourth Floor



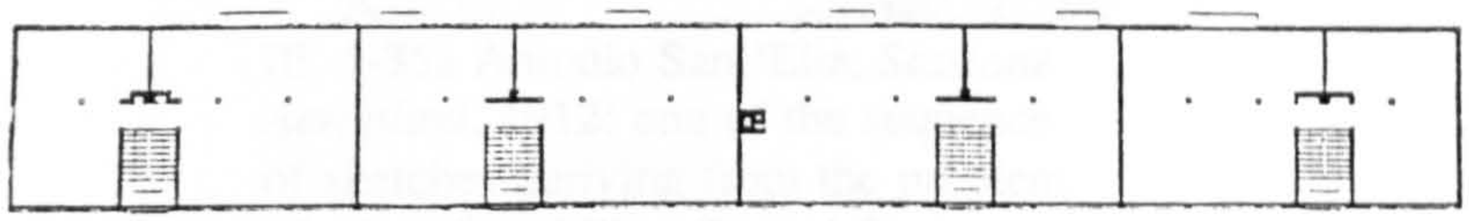
Third floor



Second floor



Ground floor

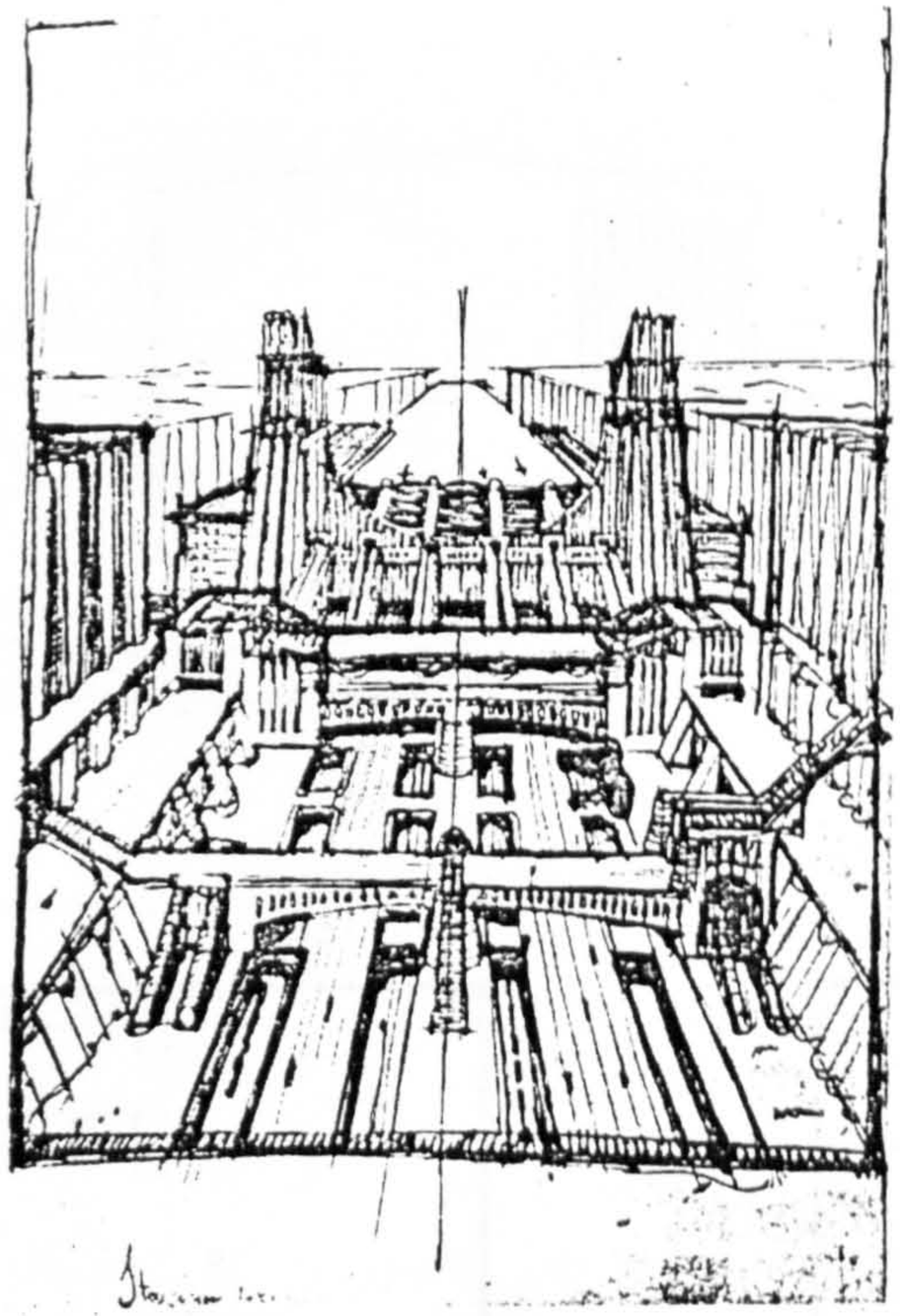


Construction system

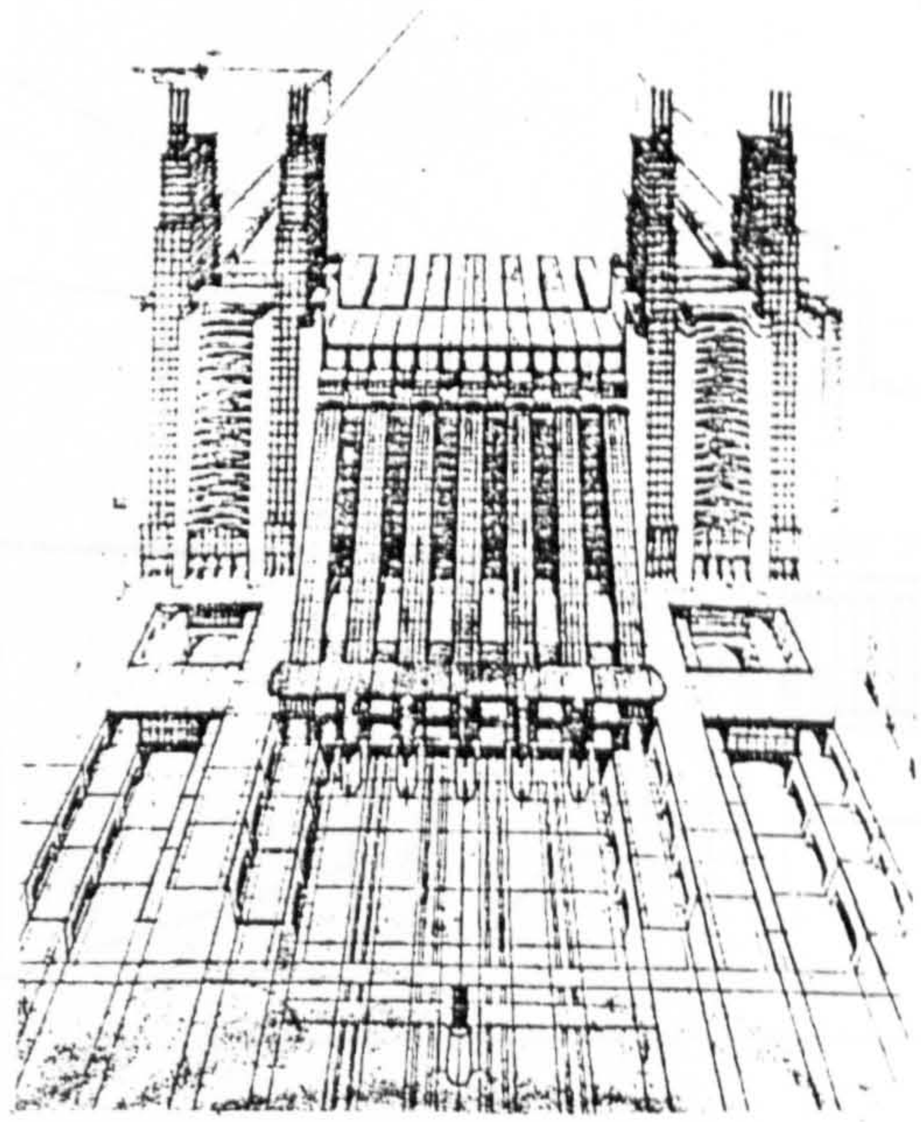
(a)

(b)

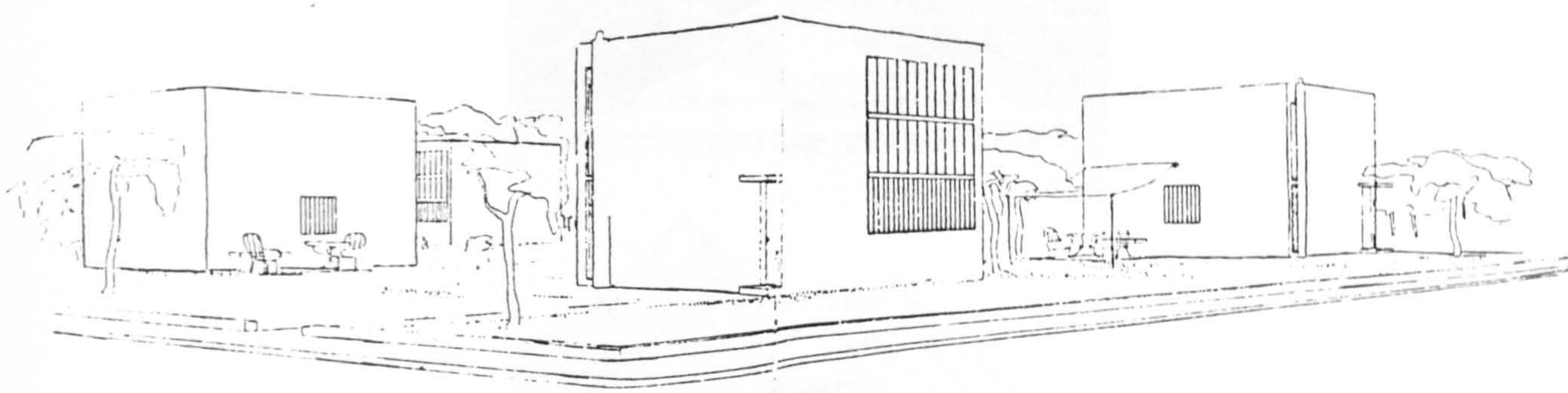
Ill. 5-34 Mies van der Rohe, Apartment House, Weissenhofsiedlung, Stuttgart, 1927; (a) plans; (b) street facade (source: Johnson, pp. 48, 46).



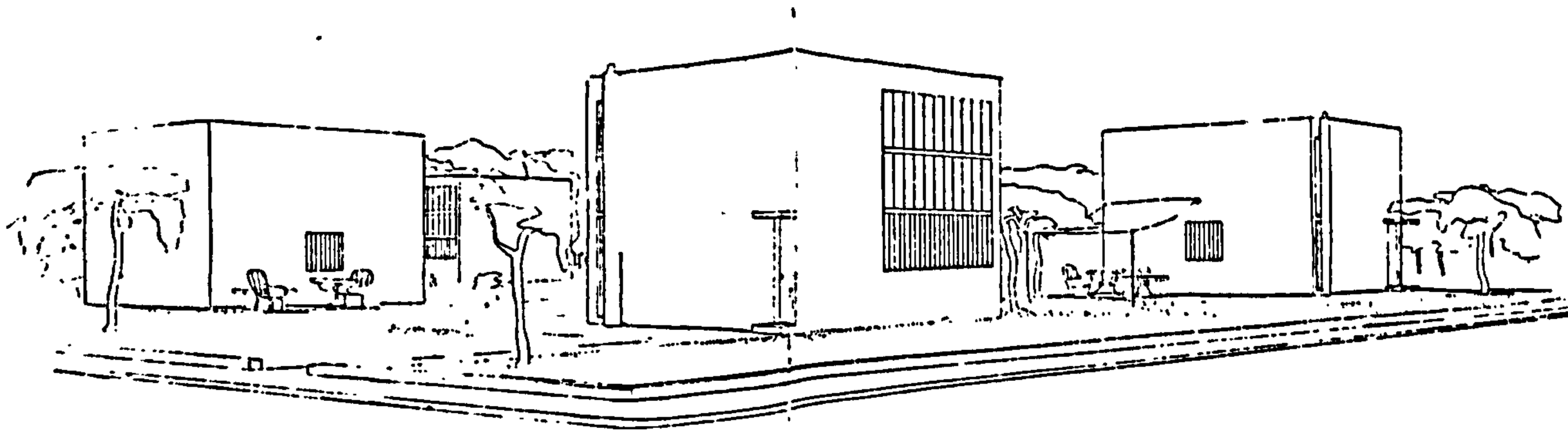
Ill. 5-35a Antonio Sant'Elia, *Stazione Aeroplani*, 1912: one of the sequence of sketches deriving from the problem of rebuilding Milan Central Station (source: Banham, ill. 42).

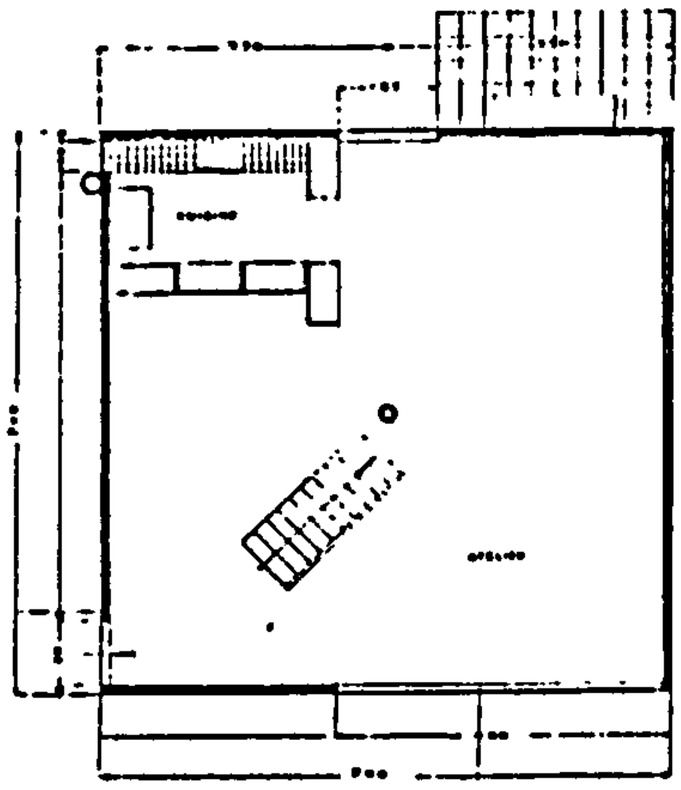


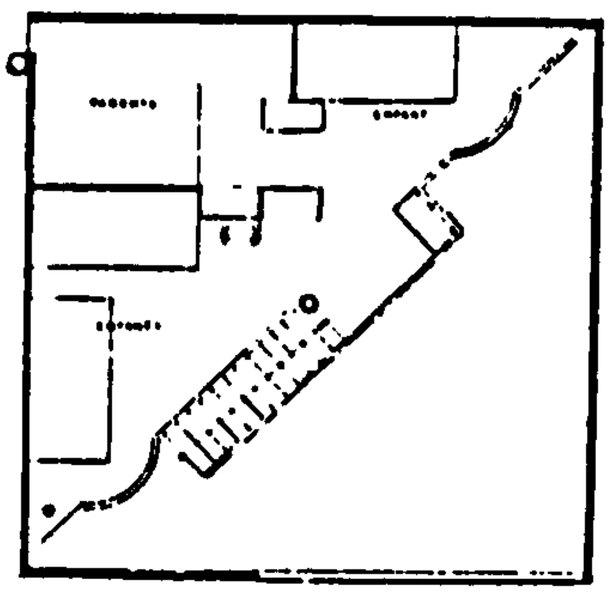
Ill. 5-35b Antonio Sant'Elia, Central Station of the *Sittà Nuova*, 1913-14 (source: Bahnam, ill. 43).

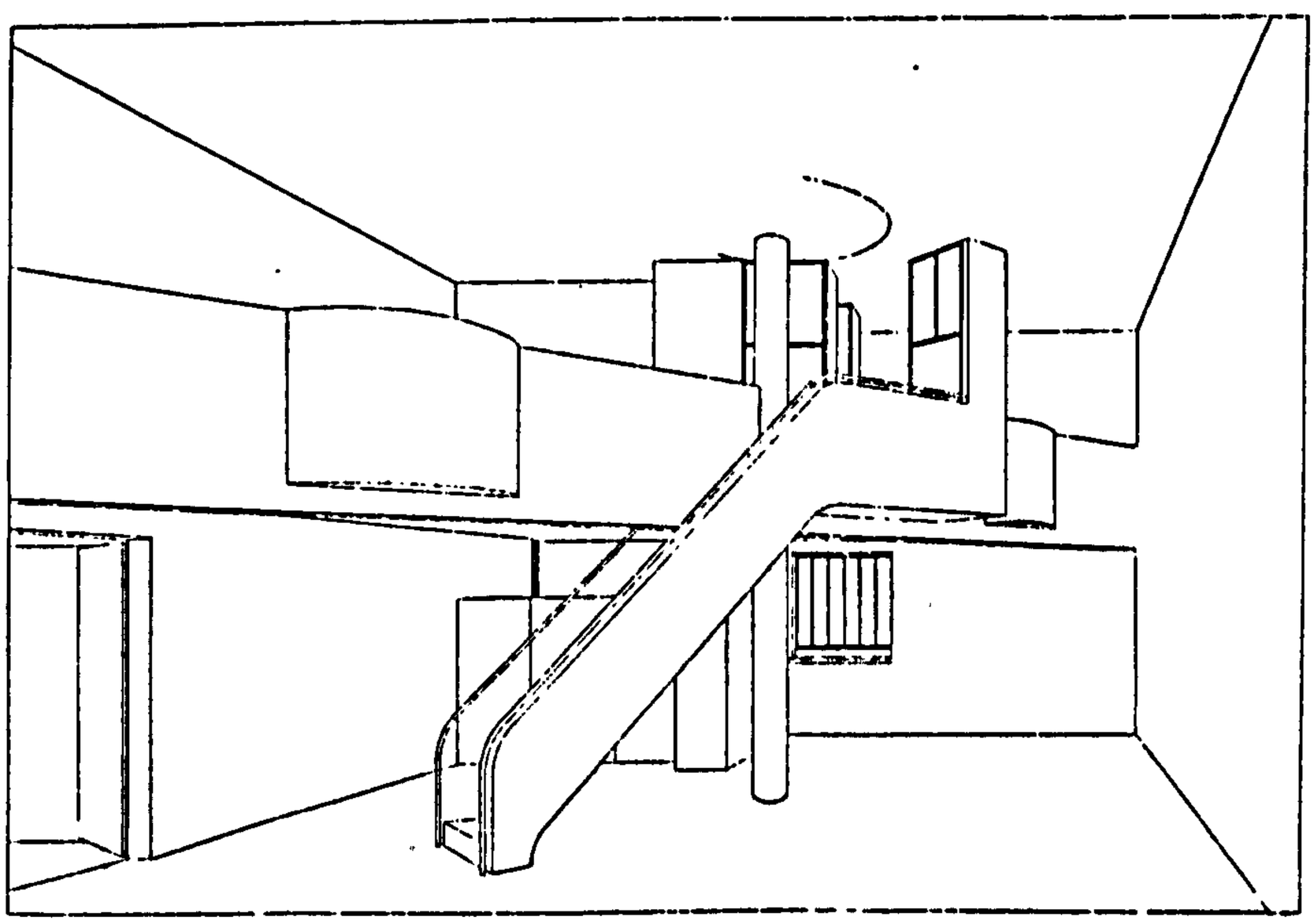


Ills 5-36 Le Corbusier and Jeanneret, 1924; mass-production Artisans' Dwellings; the plan as generator (source: Le Corbusier, pp. 254-5).

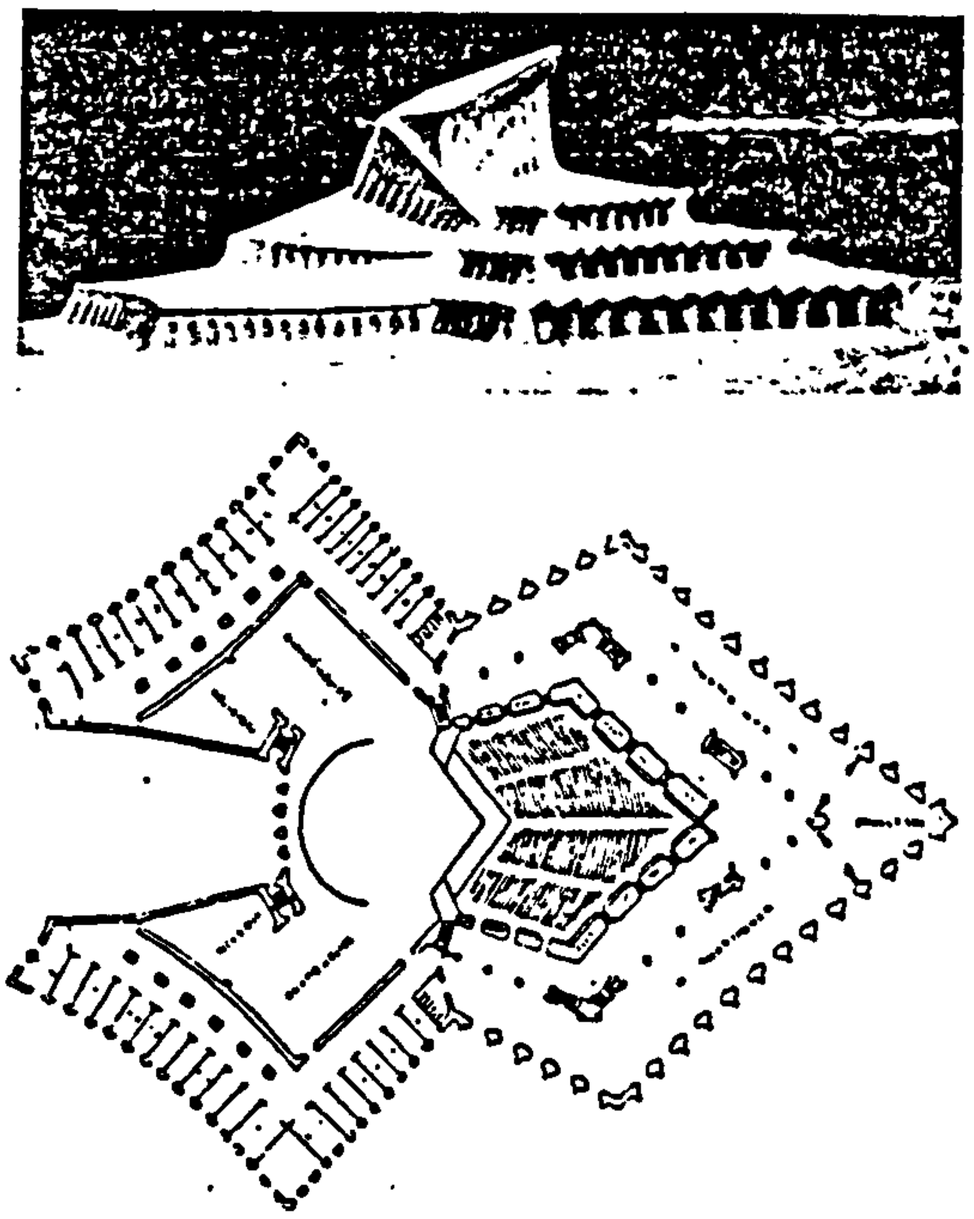




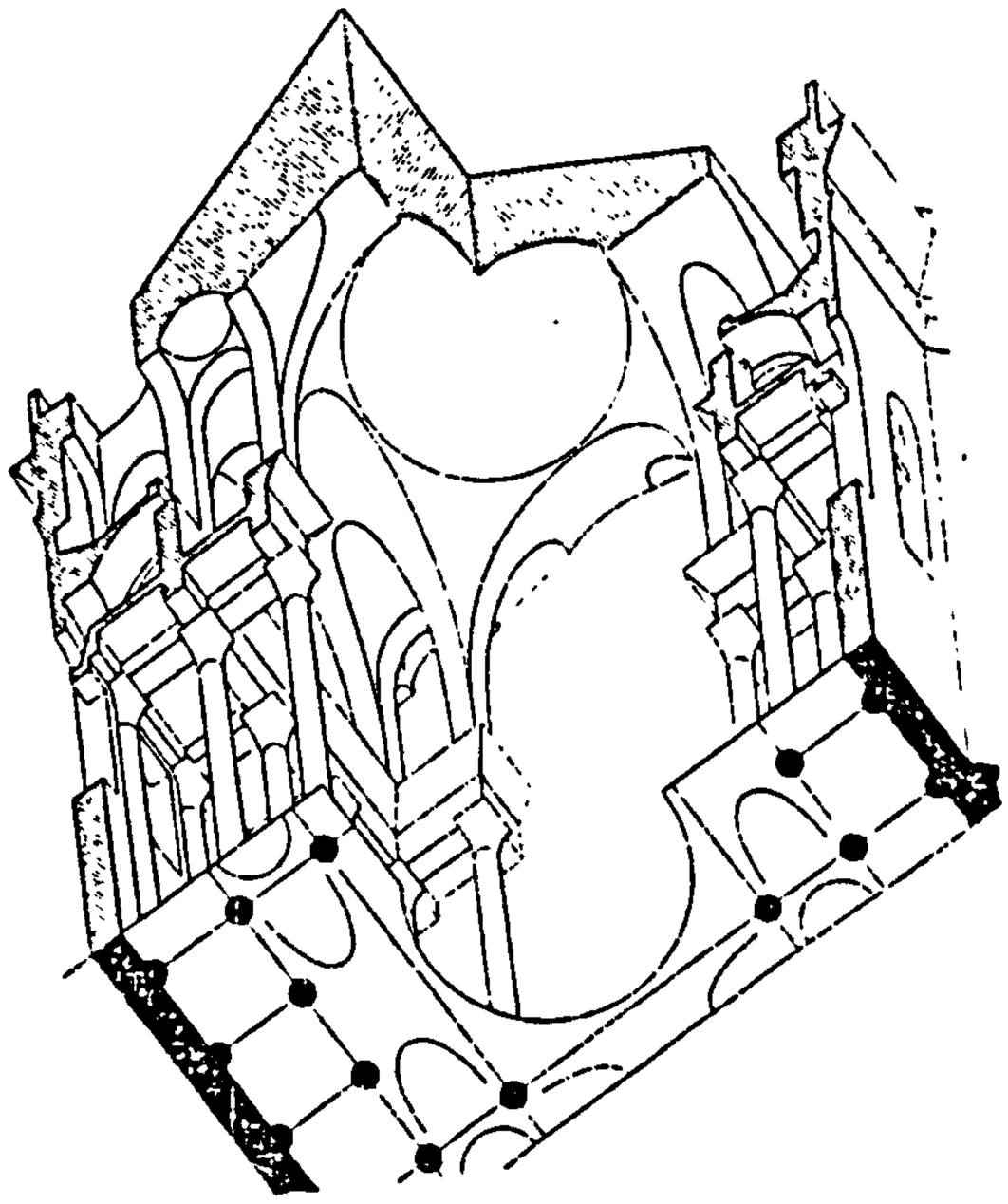




Ills 5-36 Le Corbusier and Jeanneret, 1924; mass-production Artisans' Dwellings; the plan as generator (source: Le Corbusier, pp. 254-5).



Ills 5-37 W. Luckhardt, Design for a Popular Theatre, 1921 (source: Benevolo, p. 402).



Ill. 5-38 August Choisy, axonometric projection of part of the Pantheon, Paris, 1899 (source: Choisy, ill. 1).

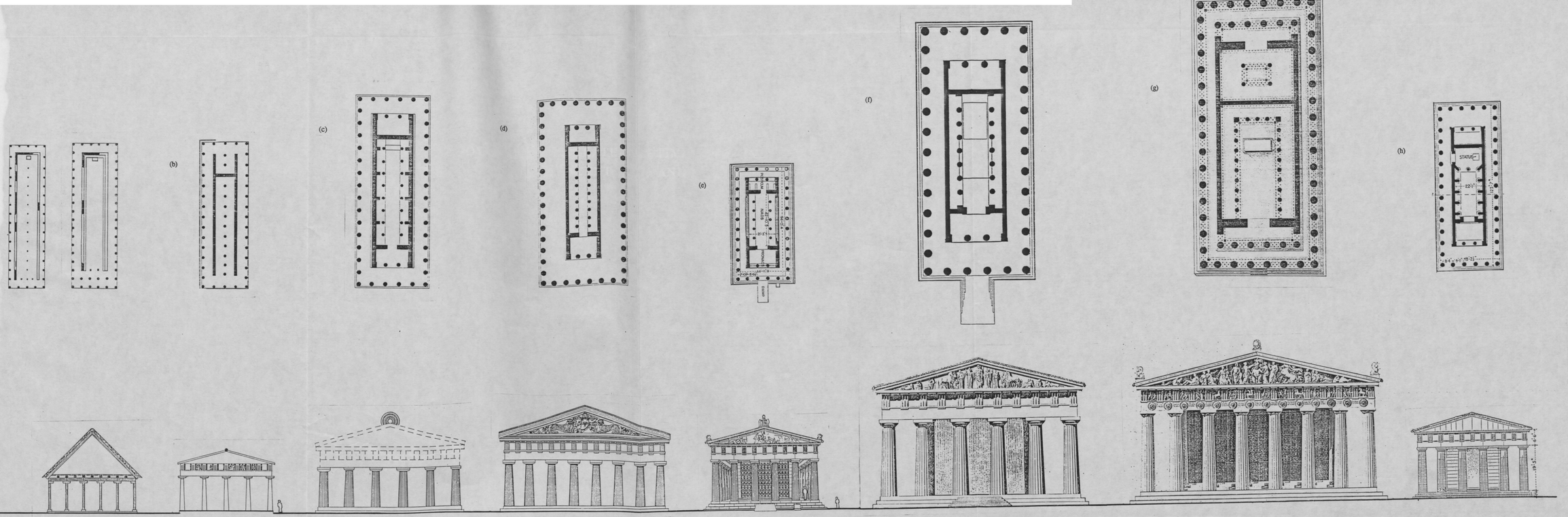
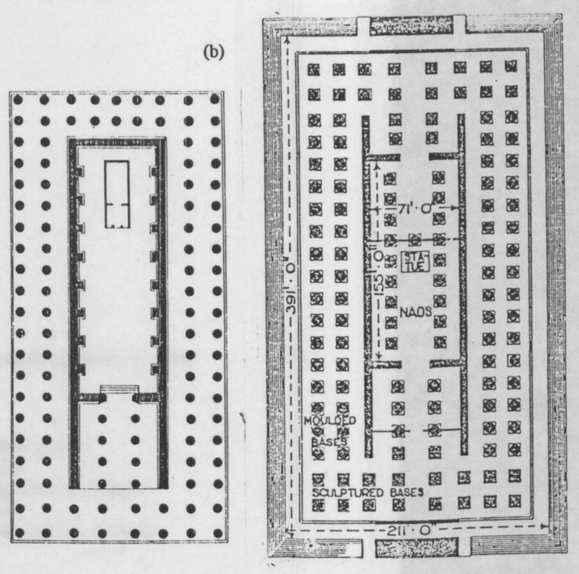
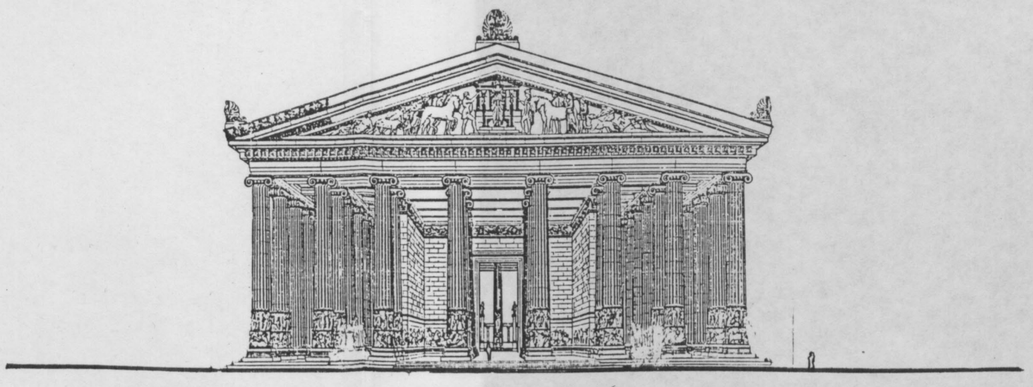


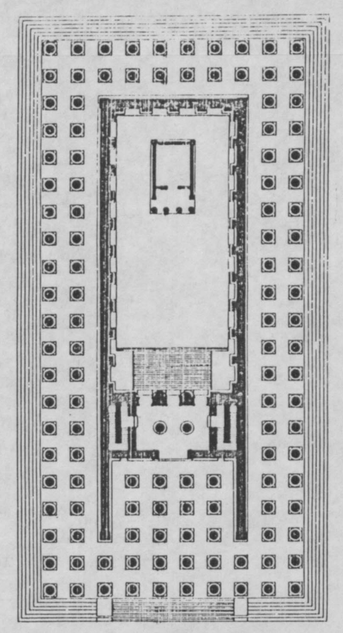
PLATE I

Evolution of the Classical temple;
(scale: elevations 1:250, plans 1:500)

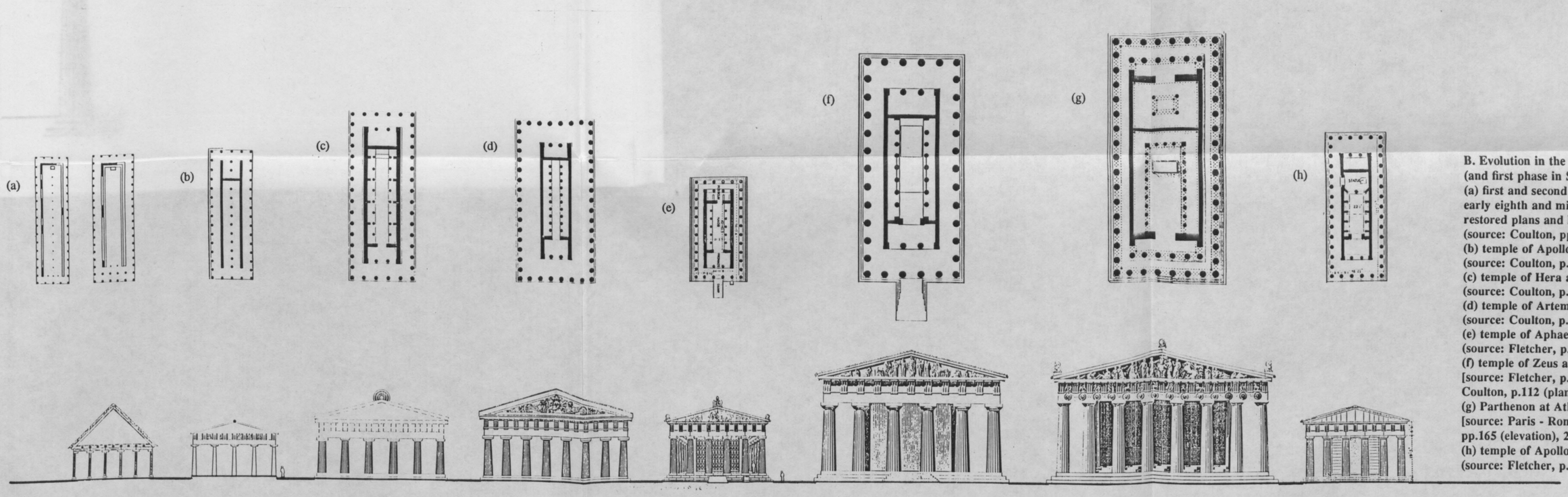
(a) first and second temple of Hera at Samos, early eighth and mid seventh century; restored plans and hypothetical elevation (source: Coulton, pp.31,33);
(b) temple of Apollo at Thermon, c. 630 B.C. (source: Coulton, p.36);
(c) temple of Hera at Olympia, c. 590 B.C. (source: Coulton, p.44);
(d) temple of Artemis at Kerkyra, c. 590 B.C. (source: Coulton, p.42);
(e) temple of Aphaea at Aegina, c. 490 B.C. (source: Fletcher, p.211);
(f) temple of Zeus at Olympia, c. 470-457 B.C. [source: Fletcher, p.214 (elevation), Coulton, p.112 (plan)];
(g) Parthenon at Athens, c. 447-432 B.C. [source: Paris - Rome - Athenes, pp.165 (elevation), 231 (plan)];
(h) temple of Apollo at Bassae, c. 450-425 B.C. (source: Fletcher, p.220).



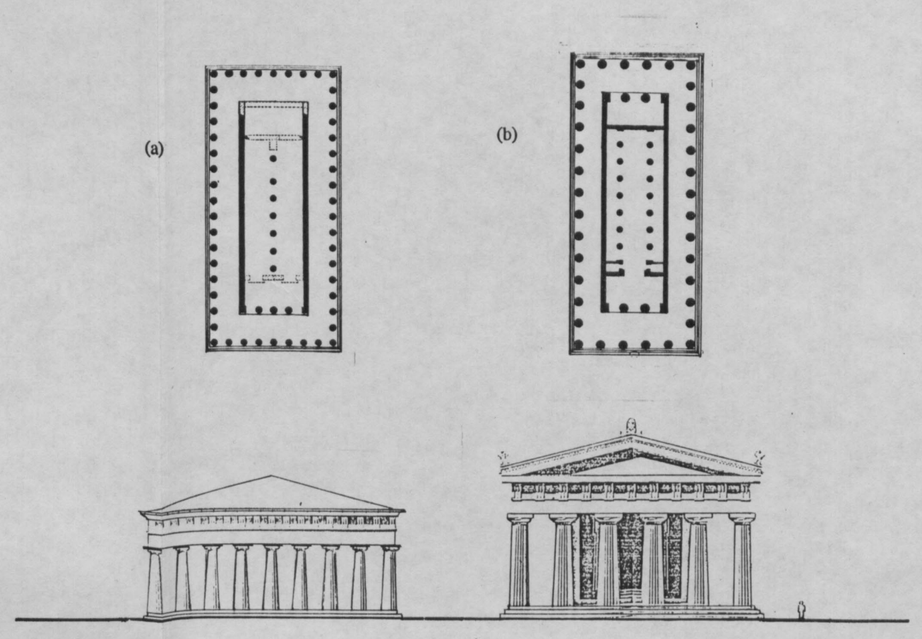




A. Evolution in Ionia;
(a) Archaic temple of Apollo at Didyma, c. 550 B.C.
(source: Coulton, p.80);
(b) temple of Artemis at Ephesus, c. 560 B.C. (Archaic phase), 356 B.C. (Hellenistic phase built on an identical to the Archaic plan); the drawings used here belong to the Hellenistic temple,
(source: Fletcher, p.226);
(c) Hellenistic temple of Apollo at Didyma, c. 334 B.C. (never finished)
(source: Coulton, p.80).



B. Evolution in the mainland
(and first phase in Samos);
(a) first and second temple of Hera at Samos, early eighth and mid seventh century; restored plans and hypothetical elevation
(source: Coulton, pp.31,33);
(b) temple of Apollo at Thermon, c. 630 B.C.
(source: Coulton, p.36);
(c) temple of Hera at Olympia, c. 590 B.C.
(source: Coulton, p.44);
(d) temple of Artemis at Kerkyra, c. 590 B.C.
(source: Coulton, p.42);
(e) temple of Aphaea at Aegina, c. 490 B.C.
(source: Fletcher, p.211);
(f) temple of Zeus at Olympia, c. 470-457 B.C.
[source: Fletcher, p.214 (elevation), Coulton, p.112 (plan)];
(g) Parthenon at Athens, c. 447-432 B.C.
[source: Paris - Rome - Athenes, pp.165 (elevation), 231 (plan)];
(h) temple of Apollo at Bassae, c. 450-425 B.C.
(source: Fletcher, p.220).



C. Evolution in Southern Italy;
(a) "Basilica" at Paestum, c. 530 B.C.
[source: Paris - Rome - Athenes, p.143 (elevation), Laurence, p.127 (plan)];
(b) temple of Poseidon at Paestum, c. 460 B.C.
[source: Paris - Rome - Athenes, pp.147 (plan), 150 (elevation)];
(c) temple of Zeus Olympios at Akragas, c. 500-460 B.C.
(source: Coulton, p.81);
(d) temple of Apollo ("GT") at Selinous, c. 530-460 B.C.
(source: Coulton, p.81).

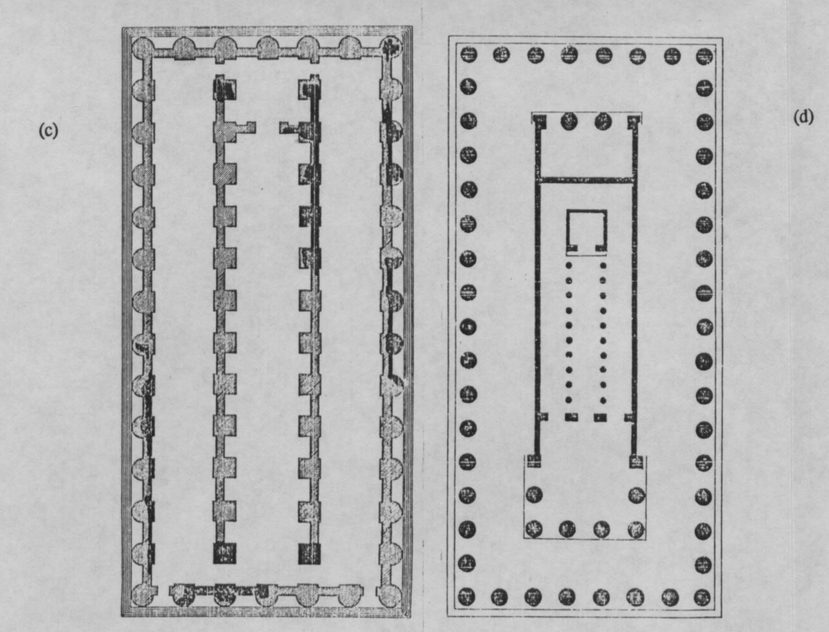


PLATE II

Parallel evolution in Ionia, mainland Greece and Southern Italy (scale: elevations 1:500, plans 1:1000).

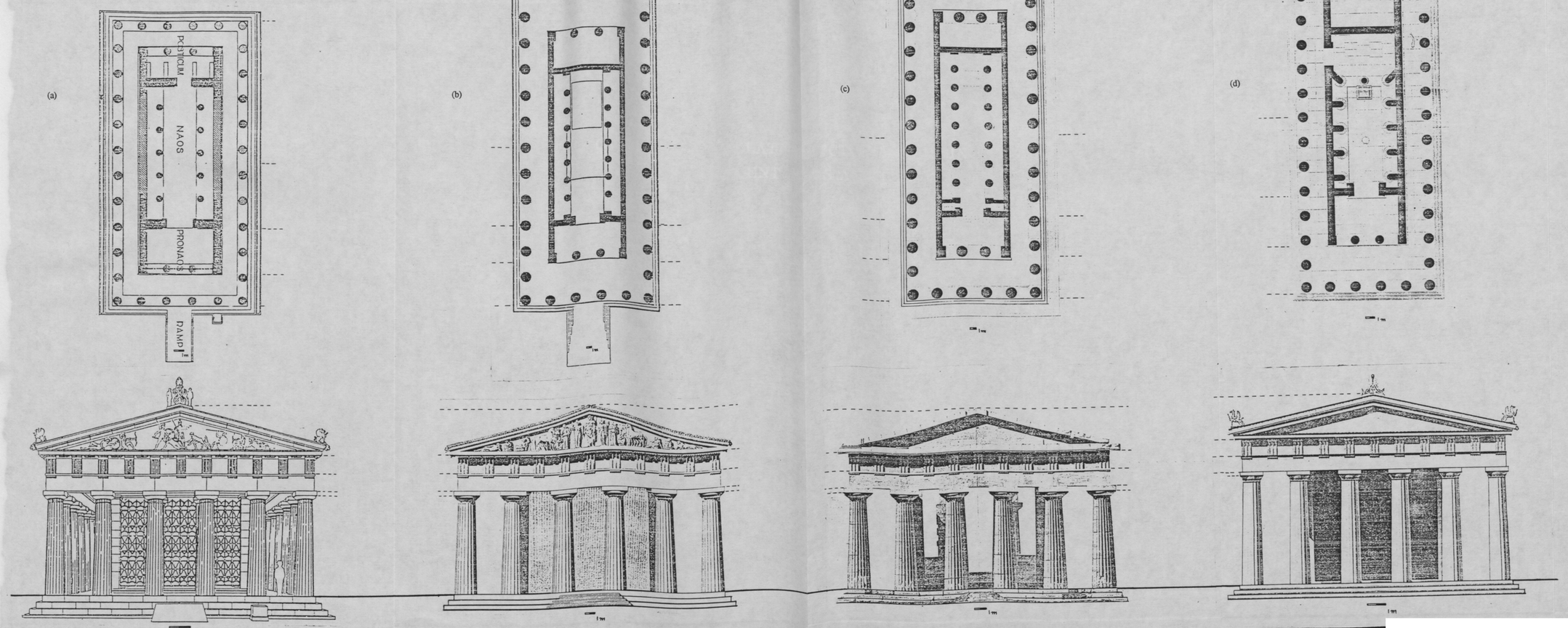


PLATE III

Temple plans and elevations scaled to suit a uniform stylobate width:
(a) temple of Aphaea at Aegina, c. 490 B.C.
(source: Fletcher, p.211);
(b) temple of Zeus at Olympia, c. 460 B.C.
(source: elevation Fletcher, p.214, plan Coulton, p.112);
(c) temple of Poseidon at Paestum, c. 460 B.C.
[source: Paris - Rome - Athenes, pp.147 (plan), 150 (elevation)];
(d) temple of Apollo at Bassae, c. 450-425 B.C.
[source: Paris - Rome - Athenes, pp.225 (plan), 229 (elevation)].

SOURCES OF PLATES AND ILLUSTRATIONS

The Acropolis at Athens, Conservation, Restoration and Research 1975-1983, Exhibition catalogue, National Gallery - Museum Alexandros Soutzos, Athens, 1983.

Banham, R.; see BIBLIOGRAPHY.

Bayer, H., Gropius, W., Gropius, I. eds; see BIBLIOGRAPHY.

Benevolo, L.; see BIBLIOGRAPHY.

Carpenter, Rhys, Greek Sculpture, A Critical Review, The University of Chicago Press, Chicago, 1960.

Choisy, A.; see BIBLIOGRAPHY.

Le Corbusier; see BIBLIOGRAPHY.

Coulton, J. J.; see BIBLIOGRAPHY.

Curtis, W. J. R.; see BIBLIOGRAPHY.

Dinsmoor, W. B.; see BIBLIOGRAPHY.

Fletcher, B.; see BIBLIOGRAPHY.

Frampton, K., 1980; see BIBLIOGRAPHY.

Friedman, M., ed.; see BIBLIOGRAPHY.

Fry, F., see BIBLIOGRAPHY.

Goodyear, W. H.; see BIBLIOGRAPHY.

Johnson, P. C.; see BIBLIOGRAPHY.

Moessel, E., 1926; see BIBLIOGRAPHY.

Nash, J. M., Cubism, Futurism and Constructivism, Thames and Hudson Ltd, London, 1974.

Nilsson, M., 1950; see BIBLIOGRAPHY.

Paris-Moscou 1900-1930; see BIBLIOGRAPHY.

Paris-Rome-Athenes, Le Vouace en Grece des Architectes Francaises aux XIV-XX Siecles, Exhibition catalogue, *L' Ecole Nationale Superiere des Beaux-Arts*, Paris, 1982.

Pevsner, N.; see BIBLIOGRAPHY.

Rietveld, Gerrit, scale model for Schroder house, 1924, photograph, collection Stedelijk Museum, Amsterdam, c/G. Rietveld 1924, c/o Beeldrecht Amsterdam.

Stangos, N., ed.; see BIBLIOGRAPHY.

Summerson, J.; see BIBLIOGRAPHY.

Tafuri, M. and Dal Co, F., Modern Architecture (tr. Robert Erich Wolf), Faber and Faber Ltd, London, 1986 (1st c/1976, by Electa Editrice, Milan).

Wolff, O.; see BIBLIOGRAPHY.

BIBLIOGRAPHY

Alison, Archibald, Essays on the Nature and the Principles of Taste, Edinburgh, 1790.

Allsopp, Harold Bruce, A History of Classical Architecture, Pitman and Sons Ltd, London, 1965.

Andronikos, Manolis, *O Platon ke e Technè, Nefelé, Athena*, 1984.

Anthony, Earl of Shaftesbury, Characteristics, ed. Robertson, London, 1900.

Apollinaire, Guillaume, The Cubist Painters, Paris, 1913.

Aquinas, Thomas, *Summa Theologiae*, Vol. 28, "Law and Political Theory", ed. and intr. A. P. D' Entreves (tr. J. G. Dawson), Blackwell's Political Texts, Oxford, 1978 (c/1948).

Arendt, Hannah, The Human Condition, The University of Chicago Press, Chicago, 1958.

Aristotle, Ethics (transl. H. Rackham), The Loeb Classical Library, William Heinemann Ltd, London, 1935.

Aristotle, Metaphysics (transl. H. Tredennick), 2 Vols, The Loeb Classical Library, Harvard University Press, Cambridge, Massachusetts, 1933.

Aristotle, Nicomachean Ethics (transl. H. Rackham), The Loeb Classical Library, Harvard University Press, Cambridge, Massachusetts, 1947 (c/1926).

Aristotle, Parts of Animals (transl. W. Ogle), cited in: Hofstadter, A. and Kuhns, R. eds, Philosophies of Art and Beauty (Selected Readings in Aesthetics from Plato to Heidegger), The University of Chicago Press, 1964.

Aristotle, Poetics (transl. I. Bywater), cited in: Hofstadter, A. and Kuhns, R. eds, Philosophies of Art and Beauty (Selected Readings in Aesthetics from Plato to Heidegger), The University of Chicago Press, 1964.

Aristotle, The Politics (transl. H. Rackham), Loeb Classical Library, William Heinemann Ltd, London, 1932.

Augustine, De Ordine (tr. R. P. Russell), included in: Hofstadter, A. and Kuhns, R. eds, Philosophies of Art and Beauty, The University of Chicago Press, Chicago, 1964.

Banham, Reyner, "Futurist manifesto", Architectural Review, Vol. 126, No 6, 1959.

Banham, Reyner, Theory and Design in the First Machine age, Butterworth Architecture, London, 1960.

Bayer, Herbert, Gropius, Walter, Gropius, Ise eds, Bauhaus 1919-1928, The Museum of Modern Art, New York, 1984 (c/1938).

Benevolo, Leonardo, History of Modern Architecture, Routledge and Kegan Paul, *London, 1971.*

Bergquist, B., discussion on "*Religion and Sanctuaries*", included in: The Greek Renaissance of the 8th c. B.C.: Tradition and Innovation, *Stockholm, 1983.*

Bernstein, R. J. ed. and intr., Habermas and Modernity, Polity Press, Cambridge, 1986 (c/Basil Blackwell, Oxford, 1985).

Bernstein, R. J., Philosophical Profiles, Polity Press, Cambridge, 1986.

Brentano, Franz, Aristotle and his World View (transl. R. George and R. M. Chisholm), University of California Press, Berkeley, 1978.

Burke, Edmund, A Philosophical Enquiry into the Origin of our Ideas of the Sublime and the Beautiful, ed. J. T. Boulton, London, 1958 and 1987.

Burkert, Walter, Greek Religion (Archaic and Classical) (transl. J. Raffan), Basil Blackwell Ltd and Harvard University Press, Oxford, 1985 (c/1977 German ed.).

Cassirer, Ernst, The Myth of the State, Yale University Press, New Haven and London, 1946.

Cassirer, Ernst, The Philosophy of the Enlightenment (tr. Fritz C. A. Koelln and James P. Pettegrove), Princeton University Press, Princeton, New Jersey, 1979.

Chipp, Herschel B., Theories of Modern Art, University of California Press, Berkeley and Los Angeles, California, 1968.

Choisy, August, *Histoire de l' Architecture*, Paris, 1899.

Cochrane, E. W., "Machiavelli: 1940-1960", published in: Journal of Modern History, June 1961.

Collingwood, R. G., The Principles of Art, Oxford University Press, Oxford, 1958 (c/1938).

Collins, Peter, Changing Ideals in Modern Architecture 1750-1950, Faber and Faber, London, 1965.

Le Corbusier and Amedée Ozenfant, *Après le Cubisme, Editions de Commentaires*, Paris, 1918.

Le Corbusier, Towards a New Architecture (tr. Frederick Etchells), The Architectural Press, London, 1987 (1st c/1923).

Le Corbusier, *L' Esprit de Vérite, L' Architecture Vivante, automne-hiver*, 1927.

Le Corbusier, *Précisions sur un état présent de l' architecture et de l' urbanism*, Paris, 1930.

Le Corbusier, *Conférence;* quoted from: Herz-Fischler, Roger, "Le Corbusier's "Regulating Lines" for the Villa at Garches(1927) and Other Early Works", Journal of the Society of Architectural Historians, Vol. 43, 1984, p. 59.

De Coulanges, Fuster, The Ancient City, Anchor ed., 1956.

Coulton, J. J., Greek Architects at Work (Problems of Structure and Design), Granada, London, 1977.

Curtis, William J. R., Modern Architecture since 1900, Phaidon Press Ltd, Oxford, 1982.

Descartes, Rene, *Discours de la Méthode; Médiations Metaphysiques; Traité de Passions* (intr. E. Faguet), Lutetia, Paris, 1946.

Diels, H., *Die Fragmente der Vorsokratiker*, W. Kranz, 6th edn, Berlin, 1951.

Dietrich, B. C., "Tradition in Greek Religion", publ. in: The Greek Renaissance of the 8th c. B.C.: Tradition and Innovation, Stockholm, 1983.

Dinsmoor, W. B., The Architecture of Ancient Greece, B. T. Batsford Ltd., London, 1950 (c/1902).

Dodds, E. R., The Greeks and the Irrational, Univ. of California Press, 1951.

Dodds, E. R., The Ancient Concept of Progress, Clarendon Press, Oxford, 1973.

Doxiades, K., *Trito Mati, Athena,* 1982.

Ehrenberg, V., "When did the *Polis* rise", Journal of Hellenic Studies, 1937, Vol. 57, pp. 147-59.

Eliade, Mircea, Patterns in Comparative Religion (tr. R. Sheed), London, 1958.

Eliot, T. S., The Sacred Wood, Methuen, London and New York, 1960.

Engels, Frederick, letter to F. Mehring, July 14, 1893, published in: Marx/Engels, Selected Works, Lawrence and Wishart, London, 1980 (c/1968).

Ettlinger, Leopold D. E., "The Emergence of the Italian Architect during the Fifteenth Century", publ. in: Spiro Kostof editor, The Architect, Oxford Univ. Press, Oxford, 1977.

Fischer, Th., *Zwei Vortrage uber Proportionen, Oldenburg,* 1934.

Fletcher, B., A History of Architecture, Univ. of London, The Athlone Press, 1975 (18th revised edition by J. C. Palmes).

Frampton, Kenneth, Modern Architecture - A Critical History, Thames and Hudson Ltd, London, 1980.

Frampton, Kenneth, "De Stijl, The Evolution and Dissolution of Neoplasticism: 1917-31", publ. in: op. cit., Stangos, Nikos ed., Concepts of Modern Art, Thames and Hudson Ltd, London, 1988 (c/1981).

Frampton, Kenneth, "Neoplasticism and Architecture; Formation and Transformation", incl. in: M. Friedman ed., De Stijl: 1917-1931, Visions of Utopia, Phaidon Press Ltd, Oxford, 1982.

Gadamer, Hans-George, Truth and Method, Sheed and Ward, London, 1975 (c/German 1960).

Galileo Galilei, Dialogues concerning Two New Sciences (tr. H. Crew and A. de Salvio), intr. A. Favaro, The Macmillan Company, New York, 1933 (c/1914).

Gettell, R. G., History of Political Thought, George Allen and Uniwin LTP, London, second ed. 1953.

Ghyka, M., *Esthetique des proportions dans la nature et dans les arts,* Paris, 1927.

Giedion, Sigfried, Space, Time and Architecture, Cambridge, Mass., 1941.

Gierke, Otto, Natural Law and the Theory of Society (tr. E. Barker), Beacon Press, Boston, 1957 (c/1934, Cambridge Univ. Press).

Gillespie, C. M., Classical Quarterly, Vol. VI, 1912, pp. 179-203.

Gleizes, Albert and Metzinger, Jean, "*Du Cubism*", 1912, incl. in: Chipp, Herschel B., Theories of Modern Art, University of California Press, Berkeley and Los Angeles, California, 1968, pp. 207-16 (parts III & V omitted).

Glotz, G., *La cité greque,* ed. Albin Michel, Paris, 1928.

Goedel, Kurt, On Formally Undecidable Propositions of Principia Mathematica and Related Systems (tr. B. Meltzer), intr. R. B. Braithwaite, Oliver and Boyd, Edinburgh, 1962.

Golding, John, "Cubism", published in: Nikos Stangos ed., Concepts of Modern Art, Thames and Hudson Ltd, London, 1988 (c/1981).

Gombrich, E. H., Norm and Form (Studies in the art of the Renaissance), Phaidon Press Limited, Oxford, 1985 (c/1966).

Goodyear, W. H., Greek Refinements, The Yale University Press, 1912.

Green, Christopher, "Purism", incl. in: Stangos, Nikos ed., Concepts of Modern Art, Thames and Hudson Ltd, London, 1988, pp. 82-3.

Gris, Juan, "Personal Statement", *L' Esprit Nouveau*, Paris, February 1921, No 5, pp. 533-4; republished in: Fry, Edward F., Cubism, The World of Art, Oxford University Press, New York, 1978, p. 162.

Gropius, Walter, "*Idee und Aufbau des Staatlichen Bauhauses Weimar*", publ. in 1923; quoted in: Frampton, Kenneth, Modern Architecture - A Critical History, Thames and Hudson Ltd, London, 1980, p. 126.

Habermas, Jurgen, The Theory of Communicative Action (tr. T. Mc Carthy), Boston, 1984.

Hambidge, J., The Parthenon and other Greek temples - their dynamic symmetry, Yale Univ. Press, 1924.

Harmsen, Ger, "De Stijl and the Russian Revolution", in: Friedman, M. ed., De Stijl: 1917-1931, Visions of Utopia, Phaidon Press Ltd, Oxford, 1982, pp. 45-9.

Harrison, Jane, Themis, Merlin Press, London, 1977 (c/1963).

Haselberger, Lothar, "The Construction Plans for the Temple of Apollo at Didyma", publ. in: Scientific American, December 1985, pp. 114-137.

Hauser, Arnold, The Social History of Art, Routledge and Kegan Paul, London, 1951.

Hegel, George Wilhelm Friedrich, Lectures on the Philosophy of the World History (tr. H. B. Nisbet), Cambridge University Press, Cambridge, 1984 (c/1975).

Heidegger, Martin, "The Origin of the Work of Art", an essay that appears in: Martin Heidegger, Poetry, Language, Thought, Harper, New York, 1971; republished in: Hofstadter, A. and Kuhns, R. eds, in: Philosophies of Art and Beauty (Selected Readings in Aesthetics from plato to Heidegger), The University of Chicago Press, 1964.

Herodotus, Historiae (transl. A. D. Godley), 4 Vols, The Loeb Classical Library, William Heinemann, London, 1921-24.

Hesiod, Theogony (transl. H. G. Evelyn-White), The Loeb Classical Library, Harvard University Press, Cambridge, Massachusetts, 1914.

Hertz, Richard, "Philosophical Foundations of Modern Art", British Journal of Aesthetics, 18, 1978, pp. 237-48.

Herz-Fischer, Roger, "Le Corbusier's "Regulating lines" for the Villa at Garches(1927) and Other Early Works", Journal of the Society of Architectural Historians, Vol. 43, 1984.

Hitchcock, Henry-Russell and Johnson, Philip, The International Style, W. W. Norton and Company, New York, 1966 (1st c/1932).

Hobbes, Thomas, *De Cive*, in: English Works of Thomas Hobbes, ed. W. Molesworth, 1839.

Hofstadter, A. and Kuhns, R. eds, Philosophies of Art and Beauty (Selected Readings in Aesthetics from Plato to Heidegger), The University of Chicago Press, Chicago, 1976 (c/1964).

Homer, The Iliad (transl. A. T. Murray), The Loeb Classical Library, Heinemann, Harvard, 1924.

"Homeric Hymn to Pythian Apollo", incl. in: Hesiod, the Homeric Hymns and Homerica, (transl. H. G. Evelyn-White), Loeb Classical Library, Harvard University Press, Cambridge, Massachusetts, 1914, p. 345.

Hume, David, "Of the Standard of Taste", incl. in: David Hume, Essays Moral, Political, and Literary, Longmans, Green and Co, London, 1875.

Husserl, Edmund, Logical Investigations (trans. J. N. Findlay), Routledge and Kegan Paul, London, 1970 (c/1900, in German).

Jaeger, Werner, Paideia: the Ideals of Greek Culture (transl. G. Highet), Oxford University Press, Oxford, 1945.

Jaffé, H. L. C., De Stijl 1917-1931, Amsterdam, 1956.

Joedicke, Jürgen, History of Modern Architecture, Architectural Press, London, 1959 (first German edition 1958).

Johnson, Philip, Mies Van Der Rohe, The Museum of Modern Art, New York, 1978.

Jordan, Bill, The State, Authority and Autonomy, Basil Blackwell, Oxford, 1986 (c/1985).

Journal of the History of Ideas, Vol. IV, No 1, January 1943.

Kahnweiler, Daniel-Henry, "The Rise of Cubism", 1915, incl. in: Chipp, Herschel B., Theories of Modern Art, University of California Press, Berkeley and Los Angeles, California, 1968.

Kant, Immanuel, Critique of Pure Reason (tr. J. M. D. Meiklejohn), Dent, London, 1934.

Kant, Immanuel, The Critique of Judgement (tr. James Creed Meredith), At the Clarendon Press, Oxford, 1969 (c/1952).

Karousos, Christos, *Perikalles Agalma Exepoies' Ouk Adaes*, Hermes EPE, Athena, 1982.

Kondylis, Panayotis, *I Kritiki tis Metaphysikis sti Neoteri Skepsi, Gnosi, Athena*, 1983.

Kris, E., Psychoanalytic Explorations in Art, 1974.

Kristeller, Paul Oskar, "The Modern System of the Arts: A Study in the History of Aesthetics(I), in: Journal of the History of Ideas, XII, 1951.

Kristeller, Paul Oskar, "The Modern System of the Arts: A Study in the History of Aesthetics(II)", in: Journal of the History of Ideas, XIII, 1952.

Lawrence, A. W., Greek Architecture, Penguin Books, England, 1973 (c/1957).

Leger, Fernand, "The Origins of Painting and its Representational Value, *Montjoie!*, No 8, 9-10, Paris, 1913; included in: Edward F. Fry, Cubism, The World of Art, Oxford University Press, New York, 1978, pp. 121-6.

Leonardo da Vinci, The Notebooks of Leonardo da Vinci (Irma A. Richter ed.), Oxford University Press, Oxford, 1987 (c/1952).

Liddell and Scott, Greek-English Lexicon, Oxford, 1888.

Lodge, R. C., "Plato and Progress", publ. in: Philosophical Review, 1946.

Lowie, R. H., Primitive Religion, New York, 1924.

Lynton, Norbert, "Expressionism", Stangos, Nikos ed., Concepts of Modern Art, Thames and Hudson Ltd, London, 1988 (c/1981), pp. 30-49.

Lyotard, Jean-Francois, The Postmodern Condition: A Report on Knowledge (tr. G. Bennington and B. Massumi), Minneapolis, 1984.

Machiavelli, Niccolo, The Prince (1516) (tr. G. Bull), Penguin Classics, Harmondsworth, 1972.

Machiavelli, Niccolo, The Discources (1519) (tr. L. J. Walker), Penguin Classics, Harmondsworth, 1983.

MacIntyre, Alasdair, " Lecture Two: Genealogies as Subversions", Gifford Lectures, Edinburgh University, 1987-8.

Martin, Roland, *L' Urbanisme dans la Grece Antique, A. et J. Picard et Cie*, Paris, 1974 (c/1956).

Marx, Karl, and Engels, Frederick, Manifesto of the Communist Party, published in: Marx/Engels, Selected Works, Lawrence and Wishart, London, 1980 (c/1968).

Meyer, A., *Ein Versuchhaus des Bauhauses*, Munich, 1925.

Moessel, E., *Die Proportion in Antike und Mittelalter, Munchen*, 1926.

Moessel, E., *Urformen des Raumes als Grundlagen der Formgestaltung, Munchen*, 1931.

Mondrian, Piet, "Plastic Art and Pure Plastic Art" ("Figurative Art and Nonfigurative Art"), 1937, publ. in: Chipp, Herschel B., Theories of Modern Art, University of California Press, Berkeley and Los Angeles, California, 1968, pp. 349-62.

Murray, Gilbert, Five Stages of Greek Religion, At The Clarendon Press, Oxford, 1925.

Nilsson, Martin, The Minoan-Mycenaean Religion and its Survival in Greek Religion, Lund, 1950 2nd edn.

Nilsson, Martin, The Mycenaean Origin of Greek Mythology, University of California Press, Berkeley, 1972 (c/1932).

Nilsson, Martin, *Ellenike Laike Threskea* (Greek Popular Religion), (transl. by I. Th. Kakridis), Athens, 1979.

Ortega y Gasset, José, "First Installment on the Dehumanization of Art", 1948, incl. in: Modernism: The Call For Form, pp. 33-43.

Ozenfant, Amedée, *Ce Mois Passe, L' Esprit Nouveau*, No 19, 1923.

Ozenfant, Amedée, *Certitude, No 1, L' Esprit Nouveau*, No 27, 1925.

Ozenfant, Amedée, *Certitude, No 2, L' Esprit Nouveau*, No 28, 1925.

Ozenfant, Amedée ed., *L' Elan*, Paris, February, 1916, No 9.

Ozenfant, Amedée and Jeanneret, *Le Purism, L' Esprit Nouveau*, No 4, 1920.

Paris-Moscou 1900-1930, catalogue to an exhibition at the Pompidou Centre in 1979.

Pausanias, Description of Greece (tr. W. H. S. Jones), 5 Vols, The Loeb Classical Library, William Heinemann, London, 1918-35.

Penrose, The Principles of the Athenian Architecture, publ. by the Society of Dilettanti, London, 1878 (1st ed. 1851).

Pevsner, Nikolaus, The Sources of Modern Architecture and Design, Thames and Hudson, London, 1979 (c/1968).

Plato, Gorgias (tr. W. R. M. Lamb), The Loeb Classical Library, William Heinemann Ltd, London, 1961 (c/1925).

Plato, Ion (tr. W. R. M. Lamb), The Loeb Classical Library , William Heinemann Ltd, London, 1925.

Plato, Laws, (transl. R. G. Bury), The Loeb Classical Library, William Heinemann Ltd, London, 1942 (c/1926).

Plato, Parmenides (tr. H. N. Fowler), The Loeb Classical Library, William Heinemann Ltd, London, 1939 (c/1926).

Plato, Philebus (tr. H. N. Fowler), The Loeb Classical Library, William Heinemann Ltd, London, 1952 (c/1925).

Plato, Protagoras (transl. W. R. M. Lamb), The Loeb Classical Library, William Heinemann Ltd, London, 1952 (c/1924).

Plato, The Republic (tr. P. Shorey), 2 Vols, The Loeb Classical Library, William Heinemann Ltd, London, 1930-35.

Plato, Statesman (tr. H. N. Fowler), The Loeb Classical Library, William Heinemann Ltd, London; 1952 (c/1939).

Plato, Symposium (transl. B. Jowett), The Dialogues of Plato, Oxford, At the Clarendon Press, 1925.

Plato, Timeaus (tr. R. G. Bury), The Loeb Classical Library, William Heinemann Ltd, London, 1961 (c/1929).

Plotinus, The Enneads (tr. A. H. Armstrong), The Loeb Classical Library, William Heinemann Ltd, London, 1966.

Podro, Michael, The Manifold in Perception (Theories in Art from Kant to Hildebrand), At the Clarendon Press, Oxford, 1972.

Popper, Karl R., The Poverty of Historicism, Routledge and Kegan Paul Ltd., London 1976 (c/Popper 1957).

Raynal, Maurice, Conception and Vision, Gil Blas, Paris, August 1912.

Raynal, Maurice, "Some Intentions of Cubism", Paris, 1919, incl. in: Fry, Edward F., Cubism, The World of Art, Oxford University Press, New York, 1978.

Rohde, Erwin, Psyche (transl. W. B. Hillis), London, 1925.

Rolley, Claude, *Les Grands Sanctuaires Panhelléniques*, published in: The Greek Renaissance of the 8th c. B.C.: Tradition and Innovation, Stockholm, 1983.

Rorty, Richard, "Habermas and Lyotard on Postmodernity", published in: Bernstein, R. J. ed. and intr., Habermas and Modernity, Polity Press, Cambridge, 1986 (c/Basil Blackwell, Oxford, 1985).

Rowe, Colin, The Mathematics of the Ideal Villa and Other Essays, MIT Press, Cambridge, Massachusetts, 1988 (c/1976).

Rykwert, Joseph, The First Moderns, The MIT Press, Cambridge, Massachusetts, 1983 (c/1980).

Saisselin, R. G., "Critical Reflections on the Origins of Modern Aesthetics", British Journal of Aesthetics, Vol. 4, 1964, pp. 7-21.

Scharf, Aaron, "Constructivism", cit. in: Stangos, Nikos ed., Concepts of Modern Art, Thames and Hudson Ltd, London, 1988 (c/1981), pp. 160-68.

Scharf, Aaron, "Suprematism", publ. in: Stangos, Nikos ed., Concepts of Modern Art, Thames and Hudson Ltd, London, 1988 (c/1981), pp. 138-40.

Semper, G., *Die vier Elemente der Baukunst, Braunschweig*, 1851.

Semper, G., *Das Stijl in den technischen und tektonischen Kunsten, Munchen*, 1878.

Snell, Bruno, The Discovery of the Mind in Greek Philosophy and Literature, Dover Publications, Inc., New York, 1982 (c/1953, 1896 German ed.).

Sparshott, Francis, The Theory of Arts, Princeton University Press, New Jersey, 1982.

Starr, C. G., "The Early Greek City-State", publ. in: *La Parola del Passato*, 1957, No 12.

Stein, Leo, Appreciation - Painting, Poetry, and Prose, New York, 1947.

Stolnitz, Jerome, "On the Origins of "Aesthetic Disinterestedness"", Journal of Aesthetics and Art Criticism, XX, 1961.

Summerson, John, The Classical Language of Architecture, Thames and Hudson Ltd, London, 1988 (c/1980).

Sykoutris, I., *Aristotelous Peri Poietices, Estia, Athena,* 1936.

Tafuri, Manfredo, Theories and History of Architecture, Granada, London, 1980.

Tatarkiewicz, W., "Classification of the Arts in Antiquity", Journal of the History of Ideas, Vol. XXIV, April 1963, pp. 231-40.

Tatarkiewicz, W., History of Aesthetics, Mouton, The Hague, 1970.

Taylor, A. E., *Varia Socratica* (St. Andrews University Publications 9) Oxford, 1911.

Thiersch, A., *Die Proportionen in den Architektur in Architektonische Komposition, Leipzig,* 1904.

Thucydides, The Funeral Oration of Pericles (transl. Hobbes, Th.), Oxford University Press, 1929.

Vasari, Giorgio, Lives of the Artists, Penguin Classics, London, 1988 (c/1965).

Verbeke, Gerard, The Presence of Stoicism in Medieval Thought, The Catholic University of America Press, Washington D. C., 1983.

Vermeule, E. T., Greece in the Bronze Age, Chicago, 1964.

Vernant, Jean Pierre, *Mythos ke Skepsé sten Archaea Ellada* (Myth and thought in Ancient Greece) (transl. from the French by S. Georgoude), Egnatia.

Vlastos, Gregory, "Solonian Justice", publ. in: Classical Philology, 1946, Vol. 41.

Vlastos, Gregory, "Equality and Justice in Early Greek Cosmologies", publ. in: Classical Philology, 1947, Vol. 42.

Vitruvius, The Ten Books on Architecture (tr. M. H. Morgan), Dover Publ., New York, 1960.

Wilson, C. B., "Theorising in Practice", publ. in: Edinburgh Architecture Research, Vol. 13, 1986, pp. 11-29.

Wittkower, Rudolf, "Individualism in Art and Artists: A Renaissance Problem", Journal of the History of Ideas, Vol. XXII, July-September 1961, Number 3.

Wittkower, Rudolf, Architectural Principles in the Age of Humanism, Academy Editions, London, 1977 (c/1973).

Wollheim, Richard, Art and its Objects, Cambridge University Press, Cambridge, 1980.

Wolfe, Tom, "The Painted Word", Harper's, April 1975, pp. 57-92.

Wolff, O., *Tempelmase, das Gesetz der Proportion in den antiken und altchristlichen Sakralbauten, Wien,* 1912.

Wolfflin, Heinrich, Renaissance and Baroque (tr. Kathrin Simon, intr. Peter Murray), William Collins Sons and Co Ltd, 1984 (c/1964).

Woodfield, Richard Woodfield, "On the Emergence of Aesthetics", British Journal of Aesthetics, Vol. 18, 1978.

Wycherley, R. E., How the Greeks Built Cities, W. W. Norton and Company, New York 1976 (c/1962).

Zevi, Bruno, "Where is Modern Architecture Going", Global Architecture Documents, 1981, Vol. 3.